

# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3**

Bill of Quantities

## ***Preamble***

| Item     | Description                                                                                                                                                                                                                                                                                          |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b><u>INTRODUCTION</u></b>                                                                                                                                                                                                                                                                           |
| 1.01     | The rules contained in this Preamble apply equally to both proposed and executed works.                                                                                                                                                                                                              |
| 1.02     | The Bills of Quantities are to be read and construed in association with the Drawings, the Specification and this Preamble. Information which is given on the Drawings and/or in the Specification is identified by cross references included in the descriptions of work in the Bill of Quantities. |
| 1.03     | Where work cannot be fully described or where the quantity of work required cannot be accurately determined, it is given as an item or a Provisional Sum.                                                                                                                                            |
| 1.04     | Unless the term meter, used in this Preamble, is preceded by the words square or cubic it is deemed to be linear.                                                                                                                                                                                    |
| 1.05     | The rates inserted by the Tenderer in the Bill of Quantities shall be in words and figures. In the case of discrepancy between the two, the rates written in words shall govern.                                                                                                                     |
| 1.06     | The type of contract is Lump Sum.                                                                                                                                                                                                                                                                    |
| <b>2</b> | <b><u>QUANTITIES</u></b>                                                                                                                                                                                                                                                                             |
| 2.01     | Quantities set out in the Bills of Quantities are the estimated quantities and they shall not be taken as the actual and correct quantities for ordering and purchasing of materials                                                                                                                 |
| 2.02     | Works shall be measured net as fixed in position in accordance with the rules contained in this preamble or except where otherwise stated in a measurement rule applicable to the work.                                                                                                              |
| 2.03     | Dimensions used in calculating quantities are taken to the nearest integer (0.5 and over is regarded as 1 and less than 0.5 is disregarded).                                                                                                                                                         |
| 2.04     | Quantities measured in tonnes are given to two places of decimals. Quantities measured in other units of mass are given to the nearest whole unit except that any quantity less than one unit is given as one unit.                                                                                  |
| 2.05     | Unless otherwise stated, where minimum deductions for voids are dealt with in this Preamble they refer only to openings which are within the boundaries of measured areas. Openings which are at the boundaries of measured areas are always deducted irrespective of size.                          |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3</b> | <b><u>DESCRIPTIONS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3.01     | Headings to groups of items in the Bill of Quantities are to be read as part of the descriptions of the items to which the headings apply.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3.02     | Dimensions are stated in descriptions generally in the sequence, length, width, height. Where ambiguity could arise, the dimensions are identified.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 3.03     | Dimensions given in descriptions are in millimeters unless otherwise indicated.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3.04     | <p>Unless otherwise specifically stated in the Bill of Quantities or herein, the following are deemed to be included in all work:</p> <ul style="list-style-type: none"> <li>- labor and all costs in construction therewith,</li> <li>- materials, products, goods and all costs in connection therewith,</li> <li>- Contractor's equipment, including but not limited to construction plant, scaffolding, tools, vehicles and the like and all costs in connection therewith,</li> <li>- assembling, fitting and fixing materials, products and goods in position,</li> <li>- any method of fixing, fixing to any nature of base or background including preparation and providing fixing materials,</li> <li>- breaking down for transport and installation and subsequent reassembly of composite items manufactured off site,</li> <li>- waste of materials,</li> <li>- square, raking and curved cutting,</li> <li>- work at any location or height,</li> <li>- work in small, isolated quantities,</li> <li>- protection of all work,</li> </ul> |

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <ul style="list-style-type: none"> <li>- protection of all existing structures, utilities, site improvements, trees and vegetation, features, pavements and other facilities on and adjacent to the site, which are to remain upon completion of the work,</li> <li>- all other enabling tasks associated and subsidiary components and items of work which are indicated or reasonably inferred from the Drawings and/ or Specification and necessary to perform and complete the work described,</li> <li>- establishment and overhead charges and profit.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 3.05 | <p>Except where items are included in the Bill of Quantities and are priced separately by the Contractor therein, provision of the following are deemed to be included with all work:</p> <ul style="list-style-type: none"> <li>- site administration and security,</li> <li>- insurances,</li> <li>- bonds and guarantees,</li> <li>- water for the Works,</li> <li>- lighting and power for the Works,</li> <li>- temporary accommodation for the use of the Contractor and the Engineer,</li> <li>- temporary telephones and the cost of calls for the use of the Contractor and the Engineer,</li> <li>- temporary roads, hardstandings, crossings and the like,</li> <li>- temporary fencing, hoardings, screens, fans, footways, guardrails, gantries and the like,</li> <li>- giving notices and making applications, including the payment of fees and charges in connection therewith,</li> <li>- safety, health and welfare of workpeople,</li> <li>- compliance with traffic regulations</li> <li>- maintenance of public and private roads, services and adjoining property,</li> </ul> |

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|      | <ul style="list-style-type: none"> <li>- control of noise and pollution, prevention of fire and compliance with all other statutory and general obligations,</li> <li>- removing rubbish, protective casings and coverings, and cleaning the Works on completion,</li> <li>- drying the Works,</li> <li>- testing and commissioning of service installations including the provision of fuel,</li> <li>- samples of materials and testing of materials including providing equipment for testing,</li> <li>- design, co- ordination, installation and as- built record drawings and the like,</li> <li>- preparation and submittal of reports, records, certificates, notices, proposals, designs, details, calculations and other information and data required by the Specification,</li> <li>- allow in unit rates for all other requirements, services, provisions, liabilities and obligations contained in the General Requirements and Conditions of Contract.</li> <li>- Maintaining, adapting, clearing away and making good are deemed to be included with the items for temporary works.</li> <li>- Payment of any customs and other import duties, harbor and port dues, wharf age, landing, pilotage and any other charges or dues including demurrage charges on any Goods or other things required for or in connection with the Works entering or leaving the country.</li> <li>- A clear clause needs to be added stating that the Specifications provided as part of the Tender Documents may not be followed in case there is need to install \ replace similar items to the existing items on site.</li> </ul> |

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4    | <b><u>SYMBOLS, ABBREVIATIONS &amp; DEFINITIONS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4.01 | <p>The following symbols and abbreviations are used in this Preamble and in the Bills of Quantities:</p> <p>Lump Sum ..... LS</p> <p>Linear Meter ..... m</p> <p>Square Meter ..... m<sup>2</sup></p> <p>Cubic Meter ..... m<sup>3</sup></p> <p>Centimeter ..... cm</p> <p>Millimeter ..... mm</p> <p>Number ..... No</p> <p>Kilogramme ..... kg</p> <p>Tonne ..... T</p> <p>Percentage ..... %</p> <p>Nominal Diameter ..... Φ</p> <p>Quantity ..... Qty</p> <p>Drawing ..... Drg / Dwg</p> <p>Mega Pascal ..... MPa</p>    |
| 4.02 | <p>The following definitions apply to all work:</p> <ul style="list-style-type: none"> <li>- 'horizontal' means level or sloping work not exceeding 15° from the horizontal</li> <li>- 'sloping' means sloping work exceeding 15° but not exceeding 80° to the horizontal,</li> <li>- 'vertical' means work exceeding 80° from the horizontal,</li> <li>- 'curved' means curved in any direction or in more than one direction and to any radius or radii and includes curved work to domes, vaults and the like.</li> </ul> |
| 4.03 | <p>The term 'extra over' means that work so described involves extra cost over the basic work in which it occurs. No deduction of the quantity of basic work is made for the extra over work.</p>                                                                                                                                                                                                                                                                                                                            |

| Item     | Description                                                                                                                                                                                                                                                                                                              |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>5</b> | <b><u>MECHANICAL ENGINEERING SERVICES PREAMBLE</u></b>                                                                                                                                                                                                                                                                   |
| 5.01     | Mechanical equipment has been measured in complete items unless otherwise stated in the specification and bill item. The rates for all items shall include for supplying all materials, fixing, terminating and connecting all accessories and components for a complete and functional item.                            |
| 5.02     | The Contractor shall consult the relevant sections of the specification when query or doubt arise.                                                                                                                                                                                                                       |
| 5.03     | The Contractor shall consult with, and employ specialist sub-contractors for specific items of work as identified in the specification. All costs associated with such works shall be included in the tender. Specialist sub-contractors will be of recognized expertise, acceptable to the engineer.                    |
| 5.04     | All items of mechanical plant shall be connected to the control and power systems by wiring out from the mechanical control centers. All wiring shall be carried out by competent and qualified electricians under the mechanical scope of works.                                                                        |
| 5.05     | Rates/prices entered against the items shall include for all costs in connection with the following:                                                                                                                                                                                                                     |
| a.       | Connection items of plant and equipment as necessary to the control and power systems.                                                                                                                                                                                                                                   |
| b.       | Provision of starter's, protective devices, automatic change over/load shedding facilities, remote & local isolation/emergency shut off as appropriate, control functions and alarms to achieve the intent outlined in the Control Section of the Specification. All motors to be of the 'Low Energy' type as specified. |
| c.       | Off loading, storing, connecting up, protecting as necessary, testing, flushing, cleaning, charging, balancing, commissioning and testing individual items of plant as well as complete systems installations all as specified & directed by Engineer.                                                                   |
| d.       | Supports, brackets and fixings of every description required to complete the works.                                                                                                                                                                                                                                      |
| e.       | Cutting or forming all holes, mortises, chases and the like in the structure to facilitate the various works and making good in all trades as necessary;                                                                                                                                                                 |
| f.       | Coordination with other associated trades, designers and specialists, at the time preparing shop drawings and during the works progress.                                                                                                                                                                                 |
| g.       | Cost of the items in the BOQ includes all works, materials and labors of all items mentioned above.                                                                                                                                                                                                                      |



| Item     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>6</b> | <b><u>ELECTRICAL ENGINEERING SERVICES PREAMBLE</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 6.01     | Rates for all items of equipment and materials shall be inclusive of all labor, electric power during installation and testing oxygen, acetylene, water, transport, rigging, temporary works, stores, offices, instruments insurance, customs, duties, overhead, profit certificates, samples, tests, supply of all information and data, supply of catalogues, charts, curves, submittals, certified drawings and all other information and services called for in the specification, all fully connected up and good working order. Rates shall also include for: |
| a.       | All builders work in connection with fixing of supports brackets, clips as required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| b.       | Cutting or forming all openings, mortises, chases, etc., in floors, walls and ceiling required for the installation and making good after                                                                                                                                                                                                                                                                                                                                                                                                                           |
| c.       | Construction of manholes, handholes and the like                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| d.       | Fitting of access doors in walls and ceilings.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| e.       | Supplying and fixing supports, brackets and clips as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| f.       | Cutting away and making good after all trades for frames, sleeves, cables, cable trays, chases for conduits and fixing of electrical boxes, conduits, accessories.                                                                                                                                                                                                                                                                                                                                                                                                  |
| g.       | Excavating and back filling trenches for cables, pipes and providing and laying precast concrete protective tiles.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| h.       | Repair, repaint and generally make good and leave in perfect condition all the work executed by him under the contract.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| I.       | All other work in connection with the installation that is not measured separately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| j.       | Electrical equipment is enumerated unless otherwise stated and the rates shall include for supplying all materials labor, plant, fixing, terminating and connecting accessories, etc.                                                                                                                                                                                                                                                                                                                                                                               |
| k.       | Feeder cables are measured in linear meters from the boards to equipment, or from the distribution board to sub-main, etc. Rates shall include for the supply of materials, laying, terminating, trenching, cable trays, ducting, etc.                                                                                                                                                                                                                                                                                                                              |

| Item | Description                                                                                                                                                                                                                                    |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| l.   | Lighting points are enumerated and the rates shall include all necessary wires, conduits, boxes and accessories, etc., required to provide power from the LP boards switch panels and switches are measured separately.                        |
| m.   | Lighting fittings are enumerated and the rates shall include the supply, installation and connections.                                                                                                                                         |
| n.   | Disconnecting/Isolating switches are enumerated and the rates shall include all necessary wires, conduits, boxes etc. If the switches are fed by cables, then the cables are measured separately.                                              |
| o.   | Lighting switches, sockets, fan/coil unit spur boxes, fused spurs for fans, kitchen, laundry equipment outlets, toilet fans points are enumerated and the rates for each shall include all wiring, conduits, accessories etc.                  |
| p.   | Earthing systems to include for all materials, labor, fixing, terminating, earth pits, rods, conductors, excavations.                                                                                                                          |
| q.   | Main distribution board, sub-mains, lighting and power panels, panel boards, etc., are enumerated items and rates shall include all the board installed completely as specified and as shown on the drawings. (cables are measured separately) |
| r.   | End of session bell system is one item. Bells and bell push button, are enumerated and include all conducting, wiring, controls, and all necessary accessories.                                                                                |
| s.   | Lightning protection system, roof conductors, tie conductors down conductors are measured in linear meters completely installed.                                                                                                               |
| t.   | Earth pits are enumerated. The cost shall include all materials, wiring, fixing, supports, etc., and bolting copper conductors to rebars to have a complete working system.                                                                    |
| u.   | The rates for automatic transfer switches include the switches completely installed with all ancillary equipment, control, modules to have a complete working system.                                                                          |
| v.   | Cost of the items in the BOQ includes all works, materials and labors of all items mentioned above.                                                                                                                                            |

**End of Preamble**

## ***General Requirments***

| Item | Description | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------|-------------|------|--------------------|-------------------|----------------|
|------|-------------|------|--------------------|-------------------|----------------|

### Notes

These General Requirements are applicable to the whole of the Works.

If the Tenderer wishes to price any of the items contained herein, then each such item, clause, or sub-clause must be individually priced.

The Tenderer shall not enter lump sums covering more than one or all items, clauses and sub-clauses.

If the General Requirements item has not been priced it will be deemed that the value of such item, clause or sub-clause is included in the rates for measured items elsewhere in the Bill of Quantities.

## **1 Preliminaries**

### **1.01 Insurance**

Provide the following insurances from an approved insurance company, all as detailed in the Conditions of Contract.

- Professional Indemnity Insurance.
- Contractor's All Risk Insurance.
- Plant and Equipment Insurance.
- Workmen Compensation Insurance.
- Third Party Insurance.

LS

*Lump Sum in Words:*

.....

### **1.02 Programme of Works**

Prepare and submit to the Engineer for approval a detailed Programme for the construction showing the proposed order & method to execute the Works, the dates upon which the various elements, trades, sections and items of Works will be started and completed, and the cash flow estimate, complete including monthly forty-five day program, all necessary revisions and updates, monitoring, all supporting data, computer analysis schedules, and all other related works, all to Engineer's satisfaction.

LS

*Lump Sum in Words:*

.....

| Item | Description                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2    | <b><u>Additional Items</u></b>                                                                                                                                                                         |      |                    |                   |                |
|      | The Contractor shall list below any Additional Items that he considers to be of value and for which he wishes to include in his Tender, and shall include details of quantities and rates accordingly. |      |                    |                   |                |
| 2.01 |                                                                                                                                                                                                        | LS   |                    |                   |                |
|      | <u>Lump Sum in Words:</u>                                                                                                                                                                              |      |                    |                   |                |
|      |                                                                                                                                                                                                        |      |                    |                   |                |
| 2.02 |                                                                                                                                                                                                        | LS   |                    |                   |                |
|      | <u>Lump Sum in Words:</u>                                                                                                                                                                              |      |                    |                   |                |
|      |                                                                                                                                                                                                        |      |                    |                   |                |
| 2.03 |                                                                                                                                                                                                        | LS   |                    |                   |                |
|      | <u>Lump Sum in Words:</u>                                                                                                                                                                              |      |                    |                   |                |
|      |                                                                                                                                                                                                        |      |                    |                   |                |
| 2.04 |                                                                                                                                                                                                        | LS   |                    |                   |                |
|      | <u>Lump Sum in Words:</u>                                                                                                                                                                              |      |                    |                   |                |
|      |                                                                                                                                                                                                        |      |                    |                   |                |
| 2.05 |                                                                                                                                                                                                        | LS   |                    |                   |                |
|      | <u>Lump Sum in Words:</u>                                                                                                                                                                              |      |                    |                   |                |
|      |                                                                                                                                                                                                        |      |                    |                   |                |

**MINYEH SCHOOLS**  
**GENERAL INDEX**

| No. | SCHOOL NAME |                                                         |
|-----|-------------|---------------------------------------------------------|
| 1   | 439         | Minyeh Blat mixed (المنية بلاط الرسمية المختلطة)        |
| 2   | 440         | Minyeh Blat Girls (المنية بلاط الرسمية للبنات)          |
| 3   | 449         | Nabi Youchaa (النبي يوشع الرسمية المختلطة)              |
| 4   | 452         | Nabi Kazbir (النبي كزبير الرسمية المختلطة)              |
| 5   | 453         | Bhanin School (بحنين الرسمية المختلطة)                  |
| 6   | 463         | Harf Al Sayyad (حرف السباد الرسمية المختلطة)            |
| 7   | 468         | Mrah Sreij (مراح السراج المتوسطة الرسمية المختلطة)      |
| 8   | 477         | Beit Al Faass high school (ثانوية بيت الفقس الرسمية)    |
| 9   | 480         | Korsayta mixed (قرصيتا الرسمية المختلطة)                |
| 10  | 481         | Nemrin mixed (نمرين الرسمية المختلطة)                   |
| 11  | 491         | Sir mixed (تكميلية سير الرسمية المختلطة)                |
| 12  | 492         | Morched derbass (المربي مرشد درباس الرسمية المختلطة)    |
| 13  | 495         | Bkarsouna second (بقرصونا الثانية الرسمية المختلطة)     |
| 14  | 496         | Bkarsouna first (بقرصونا الأولى الرسمية المختلطة)       |
| 15  | 500         | Kattine mixed (القطين الرسمية المختلطة)                 |
| 16  | 502         | Btormaz mixed (بطرماز الرسمية المختلطة)                 |
| 17  | 1336        | Minnyeh mixed (المنية الرسمية المختلطة)                 |
| 18  | 1384        | Korsayta intermediate (متوسطة قرصيتا الرسمية الثانية)   |
| 19  | 1385        | Rihanyaet Minnyeh (الريحانية الرسمية المختلطة – المنية) |
| 20  | 1546        | Markebta (ثانوية مركبتا الرسمية)                        |
| 21  | 1548        | Taran (ثانوية طاران الرسمية)                            |
| 22  | 1579        | Baazkoun (بعزقون الرسمية المختلطة)                      |
| 23  | 1586        | Wissam Eid (ثانوية الشهيد الرائد وسام عيد الرسمية)      |

# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3- 1 (4 of 25 Schools)**

Bill of Quantities

## **439 - Al Meniyeh Blat**

Bill of Quantities



---

## **Table of Contents**

### **Description**

Bill № 3: Mechanical Engineering Services

Bill № 4: Electrical Engineering Services

Summary

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                     |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 4                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 4: Electrical Engineering Services

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

**3      GENERAL LIGHTING INSTALLATIONS**

|        |                                                         |   |   |  |  |
|--------|---------------------------------------------------------|---|---|--|--|
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED | № | 4 |  |  |
|--------|---------------------------------------------------------|---|---|--|--|

*Rate or Lump Sum in Words:*

.....  
.....

**Carried to collection**



### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                 | <u>Amount (US \$)</u>       |
|----------------------------------------------------|-----------------------------|
| Bill № 3: Mechanical Engineering Services .....    | .....                       |
| Bill № 4: Electrical Engineering Services .....    | .....                       |
| <br>* Total Amount of Works for Meniye Blat School | <br>.....<br>.....          |
| <br>* Total Amount Carried to General Summary      | <br>.....<br>.....<br>..... |

## **440-Al Meniyeh Blat Public School for Girls**

### Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

Carried to Collection

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 5                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 2                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                              |      |                    |                   |                |
|         | - Repair wood elements in accordance with AWI Quality Standards requirements.<br>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.<br>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.<br>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal. |      |                    |                   |                |
| 6.1.1.1 | Kitchen Cupboards<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | m    | 6                  |                   |                |

Carried to collection



| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b>DOORS AND WINDOWS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                    |                   |                |
| 8.1.3     | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | №    | 30                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2.1.4 | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                             | Nº   | 3                  |                   |                |
| 8.2.3   | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1 | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nº   | 29                 |                   |                |
| 8.2.1.1 | Rehabilitate glazed window & door panel<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nº   | 5                  |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | m <sup>2</sup> | 50                 |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.1.2.1 | Rehabilitate and repair cracked and damaged plaster indoor and outdoor<br>Work to include:<br>- Determine the location and remove all loose items around the area<br>- Remove the cracked plaster layer<br>- Remove the pulled out layers<br>- Clean the places with suitable materials<br>- Fill all cracks after widening by (No Suggestions) or approved equal.<br>- Remove loose and other deteriorated materials prior to the new repair.<br>Take special care not to damage the adjacent original materials.<br>Prepare mortar joints for installation of lateral reinforcement where it is required.<br>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.<br>Mix mortar with minimal amount of water (potable) prior to use.<br>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.<br>- Clear debris from crack by probing, brushing, and blowing.<br>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.<br>Use as dry a mix as possible.<br>Use stone bats to fill larger crack voids.<br>Ensure mortar is forced into smaller/deeper cracks.<br>Mortar grout will be fluid in order to flow into crack.<br>Either grout bags or gravity flow shall be used depending on the conditions.<br>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.<br>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.<br>Remove all tool marks with brush.<br>- Apply the finish rough plaster layer<br>- Install galvanized steel mesh 20 cm width at least<br>- Apply the second smooth plaster layer<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | LS             | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| 9.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
|         | <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m <sup>2</sup> | 900                |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 500                |                   |                |

Carried to collection

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 12                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 12                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 12                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories           |      |                    |                   |                |
|               | The mirror should be placed on 3mm thick plywood from the back                                                                                                                     |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)                                                                                                                 | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 1                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                           | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.3     | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
| 10.3.2   | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| 10.3.2.1 | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer | m              | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |
| 10.5     | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval          |                |                    |                   |                |
| 10.5.1   | On External Opening                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 30                 |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |

Carried to collection

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....



***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                             | Nº   | 4                  |                   |                |
| 2.3   | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions                                                                                    |      |                    |                   |                |
| 2.3.1 | Cover for FCO<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                           | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

Carried to collection

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 4                  |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 5                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

Carried to collection



| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 50                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 6                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 6                  |                   |                |

Carried to collection

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                               | <u>Amount (US \$)</u> |
|--------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....    | .....                 |
| Bill № 3: Mechanical Engineering Services .....  | .....                 |
| Bill № 4: Electrical Engineering Services .....  | .....                 |
| <br>Total Amount of Bill of Works for Al Meniyeh | <br>.....             |
| * Blat Public School for Girls                   | .....                 |
| .....                                            | .....                 |
| <br>* Total Amount Carried to General Summary    | <br>.....             |
| .....                                            | .....                 |
| .....                                            | .....                 |
| .....                                            | .....                 |

## **449 - AL Nabi Youshaa Public School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works

Summary

***Bill № 2: Civil and Architectural Works***

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8       | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 8.1     | <b><u>Wooden Doors and Windows</u></b><br>Supply and install all timber work with all related items<br>The joinery works should be of the first class type and as per specifications and drawings<br>Work to include:<br>- Material and labors<br>- All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)<br>- The frame for any width (Steel, Wood, etc.)<br>- Paint as follows:<br>- Anti rust layers<br>- Putty + one layer of undercoat<br>- Three layers of epoxy paint<br>- Apply and fix 6mm wired clear glass<br>- View Permitting glass opening where needed<br>- remove the existing timber panels<br>- repair the edges<br>- The Contractor should submit shop drawings<br>- All needed items as the Engineer instructions |      |                    |                   |                |
| 8.1.1   | <b><u>Timber Doors</u></b><br>Supply and install flush timber door as per drawings with laminated plastic facing and the door should have 10cm width frame between the plywood and fill with timber beads by tongue and groove each 5cm, and the door edges should behead wood and fixed by tongue and groove frames should be as specified, with fixed glass panel vision window, and similar to existing, and to the Engineer's instructions<br><br>- Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.<br><br>- All works should be done as per the Engineer instructions                                                                                                                         |      |                    |                   |                |
| 8.1.1.2 | Provide new single leaf wooden door with view frame<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | №    | 10                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 8.2.3   | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                       |                      |                   |
| 8.2.3.1 | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                         | №    | 34                    |                      |                   |

**Carried to collection**



Lebanese Emergency Assistant Project (LEAP)  
 Rehabilitation of Shelters

Bill of Quantities  
 Bill № 2: Civil and Architectural Works

| Item    | Description                                                                                 | Unit           | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|---------------------------------------------------------------------------------------------|----------------|-----------------------|----------------------|-------------------|
| 9       | <b><u>FINISHES</u></b>                                                                      |                |                       |                      |                   |
| 9.4     | <b><u>Gypsum Works</u></b>                                                                  |                |                       |                      |                   |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>..... | m <sup>2</sup> | 900                   |                      |                   |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....         | m <sup>2</sup> | 450                   |                      |                   |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

8- DOORS AND WINDOWS

9- FINISHES

Total Carried to Summary .....

### Summary

| <u>Description</u>                                        | <u>Amount (US \$)</u> |
|-----------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....             | .....                 |
| * Total Amount of Works for Al Nabi Youshaa Public School | .....                 |
| * Total Amount Carried to General Summary                 | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |

## **452 - Nabi Kzayber Public Mixed School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

**Carried to Collection**

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

### 3 CONCRETE

#### **Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

ls 1

*Rate or Lump Sum in Words:*

.....

.....

**Carried to collection**



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 5                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 3                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 10                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval. <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | m    | 4                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 8.1   | <b><u>Wooden Doors and Windows</u></b>                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |
| 8.1.3 | <b><u>Rehabilitate the Existing Timber Doors</u></b>                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|       | As stated in the Preambles of Item 8.1                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |
|       | In addition, rehabilitate the existing timber doors:                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|       | The minimum amount of existing timber should be removed to allow an effective repair to be formed.                                                                                                                                                                                                                                                    |      |                    |                   |                |
|       | Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.                                                                                                                                                                                                                                            |      |                    |                   |                |
|       | Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.                                                                                                                                                                           |      |                    |                   |                |
|       | For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.                                                                                                                                                                                                          |      |                    |                   |                |
|       | Always work new material to the line of the existing and avoid unnecessary trimming of original timber.                                                                                                                                                                                                                                               |      |                    |                   |                |
|       | Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).                                                                                                                                                                                                                                                |      |                    |                   |                |
|       | Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint. |      |                    |                   |                |
|       | The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.                                                                                                                                               |      |                    |                   |                |
|       | Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.                                                                                                                                                     |      |                    |                   |                |
|       | If applicable carefully soften putty or remove wood trim and then remove glass.                                                                                                                                                                                                                                                                       |      |                    |                   |                |
|       | Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.                                                                                                                                                                                         |      |                    |                   |                |
|       | Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.                                                                                                                                                                                                                     |      |                    |                   |                |
|       | The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.                                                                                                                                                                                                    |      |                    |                   |                |
|       | Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.                                                                                                                                                                                                                                         |      |                    |                   |                |
|       | Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.                                                                                                                                                                                                      |      |                    |                   |                |

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 25                 |                   |                |
| 8.2       | <b><u>Aluminum Doors and Windows</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 50                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 10                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Remove all debris as specified</li><li>- All materials and labors</li><li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li><li>- Cutting and repair</li><li>- Grouting</li><li>- Polish and rubbing</li><li>- All needed items as per Engineer comments and complete to Engineer approval.</li></ul> <p><u>Rate or Lump Sum in Words:</u>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|----------------------|-------------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                       |                      |                   |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i> |                |                       |                      |                   |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 950                   |                      |                   |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 500                   |                      |                   |

**Carried to collection**



| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions                                                                                                                                                                                           |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |
| <b>10.2</b>   | <b><u>Classroom Specialties</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site<br><br>Cost to include:<br>- (3600mm x 1200mm) final dimensions as per site limitation<br>- Materials and labors<br>- Felt marker pens and eraser (12 marker pens + 2 erases for each white board)<br>- Stainless Steel screws<br>- Remove the existing board<br>- All needed works as per the Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>..... | Nº   | 20                 |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                               | Nº   | 1                  |                   |                |

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                                              | Unit           | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|----------------------|-------------------|
| 10.5   | <p><b><u>Internal Curtains</u></b></p> <p>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings</p> <p>Works to include:</p> <ul style="list-style-type: none"> <li>- Materials</li> <li>- Labors</li> <li>- Heavy Duty Accessories</li> <li>- All needed works as per the Engineer instructions and approval</li> </ul> |                |                       |                      |                   |
| 10.5.1 | <p>On External Opening</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                            | m <sup>2</sup> | 30                    |                      |                   |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 8                     |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 4                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                            | Nº   | 1                  |                   |                |

**Carried to collection**



### Collection

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 50                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 6                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                           | <u>Amount (US \$)</u> |
|--------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....                | .....                 |
| Bill № 3: Mechanical Engineering Services .....              | .....                 |
| Bill № 4: Electrical Engineering Services .....              | .....                 |
| * Total Amount of Works for Nabi Kzayber Public Mixed School | .....                 |
| * Total Amount Carried to General Summary                    | .....                 |
| .....                                                        | .....                 |
| .....                                                        | .....                 |
| .....                                                        | .....                 |

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

**General Summary Volume 3-1 (4 of 25 Schools)**

| اسم المدرسة                       | School Name           | BOQ- cost estimate<br>U.S.D | Civil & Architectural<br>U.S.D | Mechanical Services<br>U.S.D | Electrical Services<br>U.S.D |
|-----------------------------------|-----------------------|-----------------------------|--------------------------------|------------------------------|------------------------------|
| المنية بلاط الرسمية المختلطة 439- | 439 Minyeh Blat mixed |                             |                                |                              |                              |
| المنية بلاط الرسمية للبنات 440-   | 440 Minyeh Blat girls |                             |                                |                              |                              |
| النبي يوشع الرسمية المختلطة 449-  | 449 Nabi Youchaa      |                             |                                |                              |                              |
| النبي كزبير الرسمية المختلطة 452- | 452 Nabi Kazbir       |                             |                                |                              |                              |
|                                   |                       |                             |                                |                              |                              |
| <b>TOTAL</b>                      |                       |                             |                                |                              |                              |

Total Amount Carried to Grand Summary

# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3- 2 (5 of 25 Schools)**

Bill of Quantities



## **453 - Bhanin Public Mixed School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

**Carried to Collection**

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

### 3 CONCRETE

#### **Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

*Rate or Lump Sum in Words:*

.....  
 .....

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 5.1   | <b>Provide New Steel Work (Door &amp; Windows)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                       |                      |                   |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work<br/>(Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per<br>specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make<br>faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nº   | 4                     |                      |                   |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nº   | 1                     |                      |                   |
| 5.1.2 | Rehabilitate for burglar proof protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Nº   | 15                    |                      |                   |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                                  |      |                    |                   |                |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                    |                   |                |
| 6.1.1.1 | Kitchen Cupboards<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m    | 4                  |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 8.1   | <b><u>Wooden Doors and Windows</u></b>                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |
| 8.1.3 | <b><u>Rehabilitate the Existing Timber Doors</u></b>                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|       | As stated in the Preambles of Item 8.1                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |
|       | In addition, rehabilitate the existing timber doors:                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|       | The minimum amount of existing timber should be removed to allow an effective repair to be formed.                                                                                                                                                                                                                                                    |      |                    |                   |                |
|       | Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.                                                                                                                                                                                                                                            |      |                    |                   |                |
|       | Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.                                                                                                                                                                           |      |                    |                   |                |
|       | For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.                                                                                                                                                                                                          |      |                    |                   |                |
|       | Always work new material to the line of the existing and avoid unnecessary trimming of original timber.                                                                                                                                                                                                                                               |      |                    |                   |                |
|       | Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).                                                                                                                                                                                                                                                |      |                    |                   |                |
|       | Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint. |      |                    |                   |                |
|       | The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.                                                                                                                                               |      |                    |                   |                |
|       | Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.                                                                                                                                                     |      |                    |                   |                |
|       | If applicable carefully soften putty or remove wood trim and then remove glass.                                                                                                                                                                                                                                                                       |      |                    |                   |                |
|       | Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.                                                                                                                                                                                         |      |                    |                   |                |
|       | Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.                                                                                                                                                                                                                     |      |                    |                   |                |
|       | The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.                                                                                                                                                                                                    |      |                    |                   |                |
|       | Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.                                                                                                                                                                                                                                         |      |                    |                   |                |
|       | Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.                                                                                                                                                                                                      |      |                    |                   |                |



| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 27                 |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 34                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 80                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Determine the location and remove all loose items around the area</li> <li>- Remove the cracked plaster layer</li> <li>- Remove the pulled out layers</li> <li>- Clean the places with suitable materials</li> <li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li> <li>- Remove loose and other deteriorated materials prior to the new repair.</li> </ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> </ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <b>lead-free</b> and <b>Low VOC</b> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 600                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 300                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 10                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions                                                                        |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                             | Nº   | 4                  |                   |                |
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engravement for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | Nº   | 1                  |                   |                |

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                                              | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.5   | <p><b><u>Internal Curtains</u></b></p> <p>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings</p> <p>Works to include:</p> <ul style="list-style-type: none"> <li>- Materials</li> <li>- Labors</li> <li>- Heavy Duty Accessories</li> <li>- All needed works as per the Engineer instructions and approval</li> </ul> |                |                    |                   |                |
| 10.5.1 | <p>On External Opening</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                            | m <sup>2</sup> | 30                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |



***Bill № 3: Mechanical Engineering Services***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>1</b>   | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| <b>1.2</b> | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1      | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|            | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                    | Nº   | 4                  |                   |                |
| 2.3   | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions                                                                                    |      |                    |                   |                |
| 2.3.1 | Cover for FCO<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                  | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 10                 |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 15                 |                   |                |
| 5.8   | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1 | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**



| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 68                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                         | <u>Amount (US \$)</u> |
|------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....              | .....                 |
| Bill № 3: Mechanical Engineering Services .....            | .....                 |
| Bill № 4: Electrical Engineering Services .....            | .....                 |
| <br>* Total Amount of Works for Bhanin Public Mixed School | <br>.....             |
| <br>* Total Amount Carried to General Summary              | <br>.....             |
| .....                                                      | .....                 |
| .....                                                      | .....                 |
| .....                                                      | .....                 |

## **463- Harf Siad Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>1</b>   | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>1.1</b> | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1      | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

### 3 CONCRETE

#### **Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

1

*Rate or Lump Sum in Words:*

.....

**Carried to collection**

.....



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 3                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 6                  |                   |                |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 10                    |                      |                   |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                                  |      |                       |                      |                   |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | m    | 3                     |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 14                 |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 6                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                       |      |                       |                      |                   |
| 8.2.4.1 | Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas<br><br>Work to include:<br>- Remove all debris as specified<br>- All materials and labors<br>- Difference tiles (shapes thickness, dimension, pattern) as needed.<br>- Cutting and repair<br>- Grouting<br>- Polish and rubbing<br>- All needed items as per Engineer comments and complete to Engineer approval. | LS   | 1                     |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                       |                      |                   |
|         | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                       |                      |                   |
|         | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                       |                      |                   |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 500                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 300                |                   |                |

**Carried to collection**



| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                       |                      |                   |
| 10.1.4.1 | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i> .....<br>.....                                                                                                                                                                                                                         | Nº   | 2                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 5                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 3                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                           | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer | m              | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b>                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
|               | Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                             |                |                    |                   |                |
| 10.5.1        | On External Opening                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 20                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
| Total Carried to Summary .....      | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                           | Nº   | 2                  |                   |                |

**Carried to collection**



Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 3                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.1   | <b><u>W.C. for Kids</u></b><br>Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.<br>Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.<br><br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.1.1 | EWC-03 (Wall Hang - 52 x 32 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                     |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |

| Item       | Description                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                      | Nº   | 4                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                           |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                       | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1                                   | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1                                 | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1                               | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2                               | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3                               | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |
| <b><u>Carried to collection</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 5                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-



### Summary

| <u>Description</u>                                  | <u>Amount (US \$)</u> |
|-----------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....       | .....                 |
| Bill № 3: Mechanical Engineering Services .....     | .....                 |
| Bill № 4: Electrical Engineering Services .....     | .....                 |
| * Total Amount of Works for Harf Siad Public School | .....                 |
| * Total Amount Carried to General Summary           | .....                 |
| .....                                               | .....                 |
| .....                                               | .....                 |
| .....                                               | .....                 |

## **468 Marah Srej Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>1</b>   | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>1.1</b> | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1      | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 7                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 8                  |                   |                |
| 5.2.6 | Rehabilitate and paint existing steel window<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nº   | 5                  |                   |                |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 10                    |                      |                   |

Carried to collection



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 6.1.1   | <p><u>Rehabilitate Existing Kitchen Cupboards</u><br/>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.</p> <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                    |                   |                |
| 6.1.1.1 | <p>Kitchen Cupboards</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m    | 3                  |                   |                |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b>DOORS AND WINDOWS</b>                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 8.1.3     | <b>Rehabilitate the Existing Timber Doors</b>                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
|           | As stated in the Preambles of Item 8.1                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |
|           | In addition, rehabilitate the existing timber doors:                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|           | The minimum amount of existing timber should be removed to allow an effective repair to be formed.                                                                                                                                                                                                                                                    |      |                    |                   |                |
|           | Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.                                                                                                                                                                                                                                            |      |                    |                   |                |
|           | Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.                                                                                                                                                                           |      |                    |                   |                |
|           | For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.                                                                                                                                                                                                          |      |                    |                   |                |
|           | Always work new material to the line of the existing and avoid unnecessary trimming of original timber.                                                                                                                                                                                                                                               |      |                    |                   |                |
|           | Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).                                                                                                                                                                                                                                                |      |                    |                   |                |
|           | Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint. |      |                    |                   |                |
|           | The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.                                                                                                                                               |      |                    |                   |                |
|           | Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.                                                                                                                                                     |      |                    |                   |                |
|           | If applicable carefully soften putty or remove wood trim and then remove glass.                                                                                                                                                                                                                                                                       |      |                    |                   |                |
|           | Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.                                                                                                                                                                                         |      |                    |                   |                |
|           | Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.                                                                                                                                                                                                                     |      |                    |                   |                |
|           | The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.                                                                                                                                                                                                    |      |                    |                   |                |
|           | Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.                                                                                                                                                                                                                                         |      |                    |                   |                |
|           | Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.                                                                                                                                                                                                      |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories                                                                                                                                                                                                                                                                     | Nº   | 18                 |                   |                |
|           | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 8.1.1.5   | Toilet doors with related accessories as per specifications                                                                                                                                                                                                                                                                                           | Nº   | 12                 |                   |                |
|           | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |

| Item           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>8.2</b>     | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| <b>8.2.1</b>   | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| <b>8.2.1.4</b> | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | No   | 6                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 8.2.3   | <p><b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b></p> <p>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.</p> |      |                       |                      |                   |
| 8.2.3.1 | <p>Rehabilitate existing windows</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nº   | 15                    |                      |                   |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 20                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><i>Rate or Lump Sum in Words:</i></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Remove all debris as specified</li><li>- All materials and labors</li><li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li><li>- Cutting and repair</li><li>- Grouting</li><li>- Polish and rubbing</li><li>- All needed items as per Engineer comments and complete to Engineer approval.</li></ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> | LS   | 1                  |                   |                |

| Item                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5                                 | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1                               | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2                             | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 700                |                   |                |
| 9.5.1.4                             | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 400                |                   |                |
| <b><u>Carried to collection</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |



| Item     | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10       | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| 10.1     | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|          | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|          | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|          | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|          | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|          | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| 10.1.1   | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1 | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.2   | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1 | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.3   | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1 | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|          | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <p><b><u>Mirror for Lavatories</u></b></p> <p>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories</p> <p>The mirror should be placed on 3mm thick plywood from the back</p> <p>All works should be done as the Engineer instructions</p> |      |                       |                      |                   |
| 10.1.4.1 | <p>Mirror (Dimension as per site conditions and engineer instruction)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                  | No   | 6                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 20                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br><ul style="list-style-type: none"> <li>- All fixing elements</li> <li>- All stainless steel hangers</li> <li>- All necessary heavy duty accessories</li> <li>- Counter edge of 30cm length</li> <li>- All needed items and as instructed by the Engineer</li> </ul> <i>Rate or Lump Sum in Words:</i><br> | m              | 4                  |                   |                |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br><ul style="list-style-type: none"> <li>- Materials</li> <li>- Labors</li> <li>- Heavy Duty Accessories</li> <li>- All needed works as per the Engineer instructions and approval</li> </ul>                                                      |                |                    |                   |                |
| 10.5.1        | On External Opening<br><i>Rate or Lump Sum in Words:</i><br>                                                                                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 30                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                           | Nº   | 4                  |                   |                |

**Carried to collection**



Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | №    | 10                 |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | №    | 6                  |                   |                |
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | №    | 10                 |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | №    | 1                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 12                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 12                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 12                 |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                | <u>Amount (US \$)</u> |
|---------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....     | .....                 |
| Bill № 3: Mechanical Engineering Services .....   | .....                 |
| Bill № 4: Electrical Engineering Services .....   | .....                 |
| <br>* Total Amount of Works for Marah Srej School | <br>.....             |
| <br>* Total Amount Carried to General Summary     | <br>.....             |
| .....                                             | .....                 |
| .....                                             | .....                 |
| .....                                             | .....                 |



## **477 Beit El-Faks Secondary Public School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <b><u>CONCRETE</u></b><br><br><b>Reinforced Existing Columns and beams</b><br>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5                                   | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2                                 | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1                               | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 7                  |                   |                |
| 5.2.4                               | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 10                 |                   |                |
| 5.5                                 | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions                                            |      |                    |                   |                |
| 5.5.2                               | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | m    | 40                 |                   |                |
| <b><u>Carried to collection</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                              |      |                       |                      |                   |
|         | - Repair wood elements in accordance with AWI Quality Standards requirements.<br>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.<br>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.<br>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal. |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m    | 4                     |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.1.3     | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br>If applicable carefully soften putty or remove wood trim and then remove glass.<br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | №    | 14                 |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2     | <p><b><u>Aluminum Doors and Windows</u></b></p> <p>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:</p> <ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1   | <p><b><u>New Aluminum Panels (Double Glass)</u></b></p> <p>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 8.2.1.4 | <p>Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 3                  |                   |                |
| 8.2.3   | <p><b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b></p> <p>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.</p>                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 8.2.3.1 | <p>Rehabilitate existing windows</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2     | <p><b><u>Tiling Works</u></b></p> <p>Supply and install all tiling items for floors, with the skirting</p> <p>Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions</p> <p>Price to include:</p> <ul style="list-style-type: none"> <li>- Sand below tiles</li> <li>- Materials, tiles, mortars</li> <li>- Labors</li> <li>- Rubbing</li> <li>- Filling between tiles</li> <li>- Filling the skirting</li> <li>- Remove unsuitable items</li> <li>- Cleaning the places</li> <li>- All needed items as per the Engineer instructions</li> </ul>                                                                    |      |                    |                   |                |
| 9.2.4   | <p><b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 950                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 500                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 5                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                         | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions                                                                      |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                           | Nº   | 12                 |                   |                |
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                                                                               |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | Nº   | 8                  |                   |                |

| Item          | Description                                                                                                                                                             | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                |      |                       |                      |                   |
| <b>10.3.1</b> | <b><u>Drinking Basin</u></b>                                                                                                                                            |      |                       |                      |                   |
|               | Supply and install drinking basin as shown on drawings of resin layers 12 mm thick fixed on galvanized steel skeleton 4 x 4 cm hollow sections and as shown on drawings |      |                       |                      |                   |
|               | Work to include:                                                                                                                                                        |      |                       |                      |                   |
|               | - Materials                                                                                                                                                             |      |                       |                      |                   |
|               | - Labors                                                                                                                                                                |      |                       |                      |                   |
|               | - Galvanized steel skeleton                                                                                                                                             |      |                       |                      |                   |
|               | - All needed items and as instructed by the Engineer                                                                                                                    |      |                       |                      |                   |
| 10.3.1.1      | Drinking Basin -Length (up to 2.20 m)                                                                                                                                   | №    | 1                     |                      |                   |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                       |      |                       |                      |                   |
|               |                                                                                                                                                                         |      |                       |                      |                   |
| 10.3.1.2      | Drinking Basin -Length (2.21 to 2.50 m)                                                                                                                                 | №    | 1                     |                      |                   |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                       |      |                       |                      |                   |
|               |                                                                                                                                                                         |      |                       |                      |                   |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                         | Unit           | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|----------------------|-------------------|
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                                                                   |                |                       |                      |                   |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer<br><i>Rate or Lump Sum in Words:</i><br>..... | m              | 10                    |                      |                   |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                                        |                |                       |                      |                   |
| 10.5.1        | On External Opening<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 30                    |                      |                   |

**Carried to collection**



**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>1</b>     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| <b>1.2</b>   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| <b>1.2.1</b> | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                    | Nº   | 6                  |                   |                |
| 2.3   | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions                                                                                    |      |                    |                   |                |
| 2.3.1 | Cover for FCO<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                  | Nº   | 6                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg C02)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 10                 |                   |                |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 8                  |                   |                |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.7   | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1 | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 10                 |                   |                |
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 3: Mechanical Engineering Services**

| Item       | Description                                                                                                                                 | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified |      |                       |                      |                   |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 1                     |                      |                   |

**Carried to collection**

**Collection**

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         |                       |
|                                                        | .....                 |
|                                                        | .....                 |



***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 15                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 20                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 20                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                                      | <u>Amount (US \$)</u> |
|-------------------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....                           | .....                 |
| Bill № 3: Mechanical Engineering Services .....                         | .....                 |
| Bill № 4: Electrical Engineering Services .....                         | .....                 |
| <br>* Total Amount of Works for Beit El Faks<br>Secondary Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary                           | <br>.....             |
| .....                                                                   | .....                 |
| .....                                                                   | .....                 |
| .....                                                                   | .....                 |

## **480 Qorsaita Public School**

### Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

Carried to Collection

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

**3**      **CONCRETE**

**Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

*Rate or Lump Sum in Words:*

.....

.....

**Carried to collection**

1

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 5                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.2.6 | Rehabilitate and paint existing steel window<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 7                  |                   |                |

| Item                                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.5                                 | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.5.2                               | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 18                    |                      |                   |
| <b><u>Carried to collection</u></b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                       |                      |                   |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                                  |      |                       |                      |                   |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | m    | 6                     |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | №    | 14                 |                   |                |
| 8.1.1.5   | Toilet doors with related accessories as per specifications<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | №    | 8                  |                   |                |
| 8.2       | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1     | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 8.2.1.4   | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | №    | 15                 |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | №    | 20                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 50                 |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2     | <p><b><u>Tiling Works</u></b></p> <p>Supply and install all tiling items for floors, with the skirting</p> <p>Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions</p> <p>Price to include:</p> <ul style="list-style-type: none"> <li>- Sand below tiles</li> <li>- Materials, tiles, mortars</li> <li>- Labors</li> <li>- Rubbing</li> <li>- Filling between tiles</li> <li>- Filling the skirting</li> <li>- Remove unsuitable items</li> <li>- Cleaning the places</li> <li>- All needed items as per the Engineer instructions</li> </ul> |                |                    |                   |                |
| 9.2.1   | <p><b><u>New Full Mass Colored Ceramic for Floors</u></b></p> <p>Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required</p>                                                                                                                                                                                                                                                              |                |                    |                   |                |
| 9.2.1.1 | <p>Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 35                 |                   |                |
| 9.2.2   | <p><b><u>New Glazed Colored Ceramic for Walls</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
| 9.2.2.1 | <p>Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 60                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                    |                   |                |
| 9.5.1   | <p><b><u>Wall and Ceilings Paint Works</u></b></p> <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m <sup>2</sup> | 700                |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 350                |                   |                |

**Carried to collection**

| Item     | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10       | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| 10.1     | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|          | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|          | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|          | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|          | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|          | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| 10.1.1   | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1 | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |
| 10.1.2   | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1 | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |
| 10.1.3   | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1 | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|          | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                       |                      |                   |
| 10.1.4.1 | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i> .....<br>.....                                                                                                                                                                                                                         | №    | 6                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 14                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 7                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                         | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer<br><i>Rate or Lump Sum in Words:</i><br>..... | m              | 4                  |                   |                |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                                        |                |                    |                   |                |
| 10.5.1        | On External Opening<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 30                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |



***Bill № 3: Mechanical Engineering Services***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>1</b>   | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| <b>1.2</b> | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1      | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|            | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>2</b>   | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>2.2</b> | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1      | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                    | Nº   | 2                  |                   |                |
| <b>2.3</b> | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions                                                                                    |      |                    |                   |                |
| 2.3.1      | Cover for FCO<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                  | Nº   | 2                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 7                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 8                  |                   |                |
| 5.7   | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1 | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 6                  |                   |                |
| 5.8   | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1 | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**



| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 10                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                     | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....          | .....                 |
| Bill № 3: Mechanical Engineering Services .....        | .....                 |
| Bill № 4: Electrical Engineering Services .....        | .....                 |
| <br>* Total Amount of Works for Qorasita Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary          | <br>.....             |
| .....                                                  | .....                 |
| .....                                                  | .....                 |
| .....                                                  | .....                 |

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

**General Summary Volume 3-2 (5 of 25 Schools)**

| اسم المدرسة                                | School Name                   | BOQ- cost estimate<br>U.S.D | Civil & Architectural<br>U.S.D | Mechanical Services<br>U.S.D | Electrical Services<br>U.S.D |
|--------------------------------------------|-------------------------------|-----------------------------|--------------------------------|------------------------------|------------------------------|
| بجنين الرسمية المختلطة 453-                | 453 Bhanin School             |                             |                                |                              |                              |
| حرف السيد الرسمية المختلطة                 | 463- Harf Al Sayyad           |                             |                                |                              |                              |
| مراح السراج المتوسطة الرسمية المختلطة 468- | 468 Mrah Sreij                |                             |                                |                              |                              |
| ثانوية بيت الفقس الرسمية 477-              | 477 Beit Al Faass high school |                             |                                |                              |                              |
| قرصيتا الرسمية المختلطة 480-               | 480 Korsayta mixed            |                             |                                |                              |                              |
| <b>TOTAL</b>                               |                               |                             |                                |                              |                              |

Total Amount Carried to Grand Summary

# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3- 3 (5 of 25 Schools)**

Bill of Quantities

## **481 Nemrin Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

**Carried to Collection**

| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

3 **CONCRETE**

**Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

*Rate or Lump Sum in Words:*

.....

.....

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 5                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 13                 |                   |                |
| 5.2.5 | Rehabilitate double glazed aluminum windows<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 5                  |                   |                |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 20                 |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                                  |      |                       |                      |                   |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | m    | 6                     |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.1.3     | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br>If applicable carefully soften putty or remove wood trim and then remove glass.<br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | №    | 20                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.1.5 | Toilet doors with related accessories as per specifications                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | №    | 12                 |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 8.2     | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1   | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 8.2.1.4 | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | №    | 7                  |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 8.2.3   | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                       |                      |                   |
| 8.2.3.1 | Rehabilitate existing windows                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nº   | 12                    |                      |                   |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |

**Carried to collection**



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 60                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Determine the location and remove all loose items around the area</li> <li>- Remove the cracked plaster layer</li> <li>- Remove the pulled out layers</li> <li>- Clean the places with suitable materials</li> <li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li> <li>- Remove loose and other deteriorated materials prior to the new repair.</li> </ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> </ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                         | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                     |      |                    |                   |                |
| 8.2.4.1 | Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas |      |                    |                   |                |
|         | Work to include:                                                                                                                                                                                                    |      |                    |                   |                |
|         | - Remove all debris as specified                                                                                                                                                                                    |      |                    |                   |                |
|         | - All materials and labors                                                                                                                                                                                          |      |                    |                   |                |
|         | - Difference tiles (shapes thickness, dimension, pattern) as needed.                                                                                                                                                |      |                    |                   |                |
|         | - Cutting and repair                                                                                                                                                                                                |      |                    |                   |                |
|         | - Grouting                                                                                                                                                                                                          |      |                    |                   |                |
|         | - Polish and rubbing                                                                                                                                                                                                |      |                    |                   |                |
|         | - All needed items as per Engineer comments and complete to Engineer approval.                                                                                                                                      | LS   | 1                  |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                   |      |                    |                   |                |
|         | .....                                                                                                                                                                                                               |      |                    |                   |                |
|         | .....                                                                                                                                                                                                               |      |                    |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <b>lead-free</b> and <b>Low VOC</b> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 700                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 350                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                       |                      |                   |
| 10.1.4.1 | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i> .....<br>.....                                                                                                                                                                                                                         | Nº   | 8                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 11                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item | Description | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------|-------------|------|--------------------|-------------------|----------------|
|------|-------------|------|--------------------|-------------------|----------------|

**10.3.2 Lavatory Countertop**

10.3.2.1 Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:

- All fixing elements
- All stainless steel hangers
- All necessary heavy duty accessories
- Counter edge of 30cm length
- All needed items and as instructed by the Engineer

m 6

*Rate or Lump Sum in Words:*  
.....  
.....



| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                                              | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.5   | <p><b><u>Internal Curtains</u></b></p> <p>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings</p> <p>Works to include:</p> <ul style="list-style-type: none"> <li>- Materials</li> <li>- Labors</li> <li>- Heavy Duty Accessories</li> <li>- All needed works as per the Engineer instructions and approval</li> </ul> |                |                    |                   |                |
| 10.5.1 | <p>On External Opening</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                            | m <sup>2</sup> | 30                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg C02)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 10                 |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 6                  |                   |                |
| 5.7   | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1 | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 6                  |                   |                |
| 5.8   | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1 | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 8                  |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 6                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                   | <u>Amount (US \$)</u> |
|------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....        | .....                 |
| Bill № 3: Mechanical Engineering Services .....      | .....                 |
| Bill № 4: Electrical Engineering Services .....      | .....                 |
| <br>* Total Amount of Works for Nermin Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary        | <br>.....             |
| .....                                                | .....                 |
| .....                                                | .....                 |
| .....                                                | .....                 |

## **491 Sir Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

Carried to Collection



| Item | Description | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|------|-------------|------|-----------------------|----------------------|-------------------|
|------|-------------|------|-----------------------|----------------------|-------------------|

### 3 CONCRETE

#### **Reinforced Existing Columns and beams**

Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm<sup>2</sup> for cracked beams, repair rust steel and topping concrete.

Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions

1

*Rate or Lump Sum in Words:*

.....

**Carried to collection**

.....

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 2                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions                                            |      |                    |                   |                |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | m    | 50                 |                   |                |
| 5.6   | <b><u>Steel Stair</u></b><br>Provide Galvanized Steel Stair with related platform as per drawings. Contractor to submit complete shop drawings with related calculation for approval.                                                                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.6.1 | <u>Rehabilitate Steel Stair</u><br>Rehabilitate existing steel stair and remove damaged members and replace by new works to include:<br>- Materials similar to the existing<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply epoxy paint as per specification<br>- All needed items as per Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | LS   | 1                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item      | Description                                                                                                                     | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>..... | Nº   | 12                 |                   |                |
| 8.1.3.1.4 | Rehabilitate wooden windows and shutters<br><i>Rate or Lump Sum in Words:</i><br>.....                                          | Nº   | 10                 |                   |                |
| 8.1.1.5   | Toilet doors with related accessories as per specifications<br><i>Rate or Lump Sum in Words:</i><br>.....                       | Nº   | 6                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 150                |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Determine the location and remove all loose items around the area</li> <li>- Remove the cracked plaster layer</li> <li>- Remove the pulled out layers</li> <li>- Clean the places with suitable materials</li> <li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li> <li>- Remove loose and other deteriorated materials prior to the new repair.</li> </ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> </ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 9.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <b>lead-free</b> and <b>Low VOC</b> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 800                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 400                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions                                                               |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                             | Nº   | 4                  |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engravement for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm<br><i>Rate or Lump Sum in Words:</i><br>..... | Nº   | 6                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>1</b>     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| <b>1.2</b>   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| <b>1.2.1</b> | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                     |                      |                   |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer     |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                | №    | 4                  |                   |                |
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                      | №    | 14                 |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                           |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                       | №    | 1                  |                   |                |

**Carried to collection**



**Collection**

| <u>Page №</u>                     | <u>Amount (US \$)</u> |
|-----------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS | .....                 |
| 4- FIRE PROTECTION                | .....                 |
| 5- SANITARY FIXTURES              | .....                 |
| Total Carried to Summary .....    | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 2                  |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 3                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 6                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                | <u>Amount (US \$)</u> |
|---------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....     | .....                 |
| Bill № 3: Mechanical Engineering Services .....   | .....                 |
| Bill № 4: Electrical Engineering Services .....   | .....                 |
| <br>* Total Amount of Works for Sir Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary     | <br>.....             |
| .....                                             | .....                 |
| .....                                             | .....                 |
| .....                                             | .....                 |

## **492 Mershed Derbess Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary



***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

Carried to Collection

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                    |                   |                |
| 2.4   | <b><u>School Fences with Related Gates</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 2.4.2 | <u>Rehabilitate Existing Fence (Strengthening &amp; Rehabilitation)</u><br>Work to include<br><ul style="list-style-type: none"> <li>- Rehabilitate and support all the existing fence as per drawings</li> <li>- Determine the places that requires support</li> <li>- Preparation of shop drawings</li> <li>- Replace all broken elements</li> <li>- Redo all damaged elements and to be similar to existing elements</li> <li>- Finishing works as existing (plastering, paints, stone cladding, etc.)</li> <li>- Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified)</li> <li>- Replace existing chain link by new one (Galvanized)</li> <li>- Reconstruct the broken and damaged parts and rehabilitate as it was with all similar materials including steel parts with related epoxy paint as per the engineer instructions</li> </ul> | m    | 10                 |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 2.5   | <b><u>Ramp for External Existing Sidewalk</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 2.5.1 | Supply and install external pedestrian ramp as per approved shop drawing submitted by contractor<br>Work to include:<br><ul style="list-style-type: none"> <li>- Remove parts of sidewalk including curbstone and existing tiles</li> <li>- Remove the debris to outside the site</li> <li>- Submit detailed shop drawing compatible with ADA requirements</li> <li>- Supply and install concrete curbstone for the ramp</li> <li>- Supply and install floor tiles identical to the existing with mortar and all layers</li> <li>- All needed items as per the Engineer instructions</li> </ul>                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |

**Carried to collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$)                      |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|-------------------------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | ls   | 1                  |                   |                                     |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                    |                   | <b><u>Carried to collection</u></b> |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 3                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions                                            |      |                    |                   |                |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m    | 30                 |                   |                |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3     | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 14                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2.1   | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 8.2.1.4 | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                    | Nº   | 3                  |                   |                |
| 8.2.3   | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1 | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 5                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                       | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                            |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                 |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc. | m <sup>2</sup> | 90                 |                   |                |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                               |                |                    |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Determine the location and remove all loose items around the area</li> <li>- Remove the cracked plaster layer</li> <li>- Remove the pulled out layers</li> <li>- Clean the places with suitable materials</li> <li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li> <li>- Remove loose and other deteriorated materials prior to the new repair.</li> </ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> </ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                |                    |                   |                |
| 9.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                  | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                    |                   |                |
| 9.5.1   | <p><b><u>Wall and Ceilings Paint Works</u></b></p> <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><u>All paint types must be lead-free and Low VOC (Volatile Organic Compounds)</u></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | m <sup>2</sup> | 1,100              |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m <sup>2</sup> | 600                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10.1.4   | <p><b><u>Mirror for Lavatories</u></b></p> <p>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories</p> <p>The mirror should be placed on 3mm thick plywood from the back</p> <p>All works should be done as the Engineer instructions</p> |      |                    |                   |                |
| 10.1.4.1 | <p>Mirror (Dimension as per site conditions and engineer instruction)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                  | Nº   | 4                  |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                  | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.2     | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                 |                |                    |                   |                |
| 10.2.3   | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                        |                |                    |                   |                |
| 10.2.3.1 | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm | №              | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| 10.5     | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                 |                |                    |                   |                |
| 10.5.1   | On External Opening                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 56                 |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 2- SITE PREPARATION AND DEMOLITION  | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                  |                   |                |

**Carried to collection**



Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg C02)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                                 | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                             |      |                       |                      |                   |
| 5.8   | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified |      |                       |                      |                   |
| 5.8.1 | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 1                     |                      |                   |

**Carried to collection**

### Collection

| <u>Page №</u>                     | <u>Amount (US \$)</u> |
|-----------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS | .....                 |
| 4- FIRE PROTECTION                | .....                 |
| 5- SANITARY FIXTURES              | .....                 |
| Total Carried to Summary .....    | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 5                  |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 7                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 6                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                            | <u>Amount (US \$)</u> |
|---------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....                 | .....                 |
| Bill № 3: Mechanical Engineering Services .....               | .....                 |
| Bill № 4: Electrical Engineering Services .....               | .....                 |
| <br>* Total Amount of Works for Mershed Derbess Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary                 | <br>.....             |
| .....                                                         | .....                 |
| .....                                                         | .....                 |
| .....                                                         | .....                 |



## **495 Bakarsouna Second Public School**

Bill of Quantities

---

## Table of Contents

### Description

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work<br/>(Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per<br>specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make<br>faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nº   | 2                     |                      |                   |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 1                     |                      |                   |

Carried to collection

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.1.3     | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br>If applicable carefully soften putty or remove wood trim and then remove glass.<br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i> .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | №    | 17                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u>.....</p> | LS   | 1                  |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Remove all debris as specified</li><li>- All materials and labors</li><li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li><li>- Cutting and repair</li><li>- Grouting</li><li>- Polish and rubbing</li><li>- All needed items as per Engineer comments and complete to Engineer approval.</li></ul> <p><u>Rate or Lump Sum in Words:</u><br/>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 1,100              |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 550                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <p><b><u>Mirror for Lavatories</u></b></p> <p>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories</p> <p>The mirror should be placed on 3mm thick plywood from the back</p> <p>All works should be done as the Engineer instructions</p> |      |                       |                      |                   |
| 10.1.4.1 | <p>Mirror (Dimension as per site conditions and engineer instruction)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                  | Nº   | 6                     |                      |                   |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

2- SITE PREPARATION AND DEMOLITION

3- Concrete

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**



**Collection**

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                             | <u>Amount (US \$)</u>       |
|----------------------------------------------------------------|-----------------------------|
| Bill № 2: Civil and Architectural Works .....                  | .....                       |
| Bill № 3: Mechanical Engineering Services .....                | .....                       |
| Bill № 4: Electrical Engineering Services .....                | .....                       |
| <br>* Total Amount of Works for Bkarsouna Second Public School | <br>.....<br>.....          |
| <br>* Total Amount Carried to General Summary                  | <br>.....<br>.....<br>..... |

## **496 Bakarsouna First Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"><li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li><li>- Damaged Tiling (floors and walls)</li><li>- Toilet fixtures and pipes installation of all sizes</li><li>- Counter tops, bases and sinks</li><li>- Water tanks of different types</li><li>- Hollow concrete block walls or concrete walls of all sizes</li><li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li><li>- Including the necessary equipment for the removal of debris and all resulting materials</li><li>- etc.</li></ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p>Rate or Lump Sum in Words:</p> <p>.....</p> <p>.....</p> | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 4                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 30                 |                   |                |
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions                                            |      |                    |                   |                |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m    | 35                 |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 6.1.1   | <p><u>Rehabilitate Existing Kitchen Cupboards</u><br/>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.</p> <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                    |                   |                |
| 6.1.1.1 | <p>Kitchen Cupboards</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m    | 6                  |                   |                |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3     | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | №    | 20                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2     | <p><b><u>Aluminum Doors and Windows</u></b></p> <p>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:</p> <ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1.4 | <p>Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No   | 5                  |                   |                |

| Item         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| <b>8.2.3</b> | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                       |                      |                   |
| 8.2.3.1      | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nº   | 6                     |                      |                   |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                    |                   |                |
| 9.5.1   | <p><b><u>Wall and Ceilings Paint Works</u></b></p> <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m <sup>2</sup> | 1,100              |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 550                |                   |                |

**Carried to collection**

| Item     | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10       | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| 10.1     | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|          | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|          | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|          | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|          | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|          | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| 10.1.1   | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1 | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.2   | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1 | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.3   | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1 | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|          | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10.1.4   | <p><b><u>Mirror for Lavatories</u></b></p> <p>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories</p> <p>The mirror should be placed on 3mm thick plywood from the back</p> <p>All works should be done as the Engineer instructions</p> |      |                    |                   |                |
| 10.1.4.1 | <p>Mirror (Dimension as per site conditions and engineer instruction)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                  | No   | 6                  |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                  | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.2     | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                 |                |                    |                   |                |
| 10.2.3   | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                        |                |                    |                   |                |
| 10.2.3.1 | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm | Nº             | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                          |                |                    |                   |                |
| 10.3.2   | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |
| 10.3.2.1 | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer        | m              | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                          |                |                    |                   |                |
| 10.5     | <b><u>Internal Curtains</u></b>                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
|          | Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                                    |                |                    |                   |                |
| 10.5.1   | On External Opening                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 80                 |                   |                |
|          | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                          |                |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**



| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 3                  |                   |                |
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 8                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

**Collection**

| <u>Page №</u>                     | <u>Amount (US \$)</u> |
|-----------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS | .....                 |
| 4- FIRE PROTECTION                | .....                 |
| 5- SANITARY FIXTURES              | .....                 |
| Total Carried to Summary .....    | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 10                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 5                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                             | <u>Amount (US \$)</u> |
|----------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....                  | .....                 |
| Bill № 3: Mechanical Engineering Services .....                | .....                 |
| Bill № 4: Electrical Engineering Services .....                | .....                 |
| <br>* Total Amount of Works for Bakarsouna First Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary                  | <br>.....             |
| .....                                                          | .....                 |
| .....                                                          | .....                 |
| .....                                                          | .....                 |

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

### General Summary Volume 3-3 (4 of 25 Schools)

| اسم المدرسة                             | School Name          | BOQ- cost estimate<br>U.S.D | Civil & Architectural<br>U.S.D | Mechanical Services<br>U.S.D | Electrical Services<br>U.S.D |
|-----------------------------------------|----------------------|-----------------------------|--------------------------------|------------------------------|------------------------------|
| نمرين الرسمية المختلطة 481-             | 481 Nemrin mixed     |                             |                                |                              |                              |
| تكميلية سير الرسمية المختلطة 491-       | 491 Sir mixed        |                             |                                |                              |                              |
| المربي مرشد درباس الرسمية المختلطة 492- | 492 Morched derbass  |                             |                                |                              |                              |
| بقرصونا الثانية الرسمية المختلطة 495-   | 495 Bkarsouna second |                             |                                |                              |                              |
| بقرصونا الأولى الرسمية المختلطة 496-    | 496 Bkarsouna first  |                             |                                |                              |                              |
| TOTAL                                   |                      |                             |                                |                              |                              |

Total Amount Carried to Grand Summary



# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3- 4 (5 of 25 Schools)**

Bill of Quantities

## **500 Qattin Public School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>1</b>   | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>1.1</b> | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1      | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p>Rate or Lump Sum in Words:</p> <p>.....</p> <p>.....</p> | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 5                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |

Carried to collection

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |



Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 2: Civil and Architectural Works

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                       | №    | 8                  |                   |                |
| 8.2.1     | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 8.2.1.4   | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                             | №    | 2                  |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | №    | 7                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                |                    |                   |                |
| 9.5.1   | <p><b><u>Wall and Ceilings Paint Works</u></b></p> <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m <sup>2</sup> | 900                |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 400                |                   |                |

**Carried to collection**

| Item     | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10       | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| 10.1     | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|          | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|          | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|          | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|          | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|          | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| 10.1.1   | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1 | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.2   | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1 | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |
| 10.1.3   | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1 | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|          | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          | .....                                                                                                                                                                              |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <p><b><u>Mirror for Lavatories</u></b></p> <p>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories</p> <p>The mirror should be placed on 3mm thick plywood from the back</p> <p>All works should be done as the Engineer instructions</p> |      |                       |                      |                   |
| 10.1.4.1 | <p>Mirror (Dimension as per site conditions and engineer instruction)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                  | No   | 4                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm | №    | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer        | m    | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                           | Nº   | 2                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                     |      |                    |                   |                |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as detailed and specified. |      |                    |                   |                |
| 4.1.2 | FE-02 (4.5Kg C02)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                          | Nº   | 6                  |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.1   | <b><u>W.C. for Kids</u></b><br>Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.<br>Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.<br><br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)                                                             |      |                    |                   |                |
| 5.1.1 | EWC-03 (Wall Hang - 52 x 32 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 3                  |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 3                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 3                  |                   |                |

| Item       | Description                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                        | Nº   | 12                 |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                           |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                         | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**



Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 4: Electrical Engineering Services

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                              | Nº   | 5                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                | Nº   | 5                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

4- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                               | <u>Amount (US \$)</u> |
|--------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....    | .....                 |
| Bill № 3: Mechanical Engineering Services .....  | .....                 |
| Bill № 4: Electrical Engineering Services .....  | .....                 |
| * Total Amount of Works for Qattin Public School | .....                 |
| * Total Amount Carried to General Summary        | .....                 |
| .....                                            | .....                 |
| .....                                            | .....                 |
| .....                                            | .....                 |

## **502 Btermaz Public School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

Carried to Collection

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <b><u>CONCRETE</u></b><br><br><b>Reinforced Existing Columns and beams</b><br>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       | <b><u>Carried to collection</u></b> |                   |



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 8.1   | <b><u>Wooden Doors and Windows</u></b><br>Supply and install all timber work with all related items<br>The joinery works should be of the first class type and as per specifications and drawings<br>Work to include:<br>- Material and labors<br>- All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.)<br>- The frame for any width (Steel, Wood, etc.)<br>- Paint as follows:<br>- Anti rust layers<br>- Putty + one layer of undercoat<br>- Three layers of epoxy paint<br>- Apply and fix 6mm wired clear glass<br>- View Permitting glass opening where needed<br>- remove the existing timber panels<br>- repair the edges<br>- The Contractor should submit shop drawings<br>- All needed items as the Engineer instructions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 8.1.3 | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint. |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
|           | <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 16                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Determine the location and remove all loose items around the area</li> <li>- Remove the cracked plaster layer</li> <li>- Remove the pulled out layers</li> <li>- Clean the places with suitable materials</li> <li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li> <li>- Remove loose and other deteriorated materials prior to the new repair.</li> </ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> </ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 8.2.4.1 | Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement).<br>Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas<br><br>Work to include:<br>- Remove all debris as specified<br>- All materials and labors<br>- Difference tiles (shapes thickness, dimension, pattern) as needed.<br>- Cutting and repair<br>- Grouting<br>- Polish and rubbing<br>- All needed items as per Engineer comments and complete to Engineer approval. | LS   | 1                  |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
|         | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
|         | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

8- DOORS AND WINDOWS

9- FINISHES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                     |                      |                   |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

Total Carried to Summary .....



***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                    | <u>Amount (US \$)</u> |
|-------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....         | .....                 |
| Bill № 3: Mechanical Engineering Services .....       | .....                 |
| Bill № 4: Electrical Engineering Services .....       | .....                 |
| <br>* Total Amount of Works for Btermaz Public School | <br>.....             |
| <br>* Total Amount Carried to General Summary         | <br>.....             |
| .....                                                 | .....                 |
| .....                                                 | .....                 |
| .....                                                 | .....                 |

## **1336- El Meniyeh Public mixed School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

Lebanese Emergency Assistant Project (LEAP)  
 Rehabilitation of Shelters

Bill of Quantities  
 Bill № 2: Civil and Architectural Works

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 3                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 15                 |                   |                |

Carried to collection



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
|           | <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p>                                                                                              |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 8.2.3     | <p><b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b></p> <p>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.</p> |      |                    |                   |                |
| 8.2.3.1   | <p>Rehabilitate existing windows</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nº   | 54                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 150                |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><i>Rate or Lump Sum in Words:</i></p> | LS   | 1                  |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>9.5</b>   | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| <b>9.5.1</b> | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2      | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 800                |                   |                |
| 9.5.1.4      | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 400                |                   |                |

**Carried to collection**

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item          | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><u>Rate or Lump Sum in Words:</u><br>.....                                                                                                                                                                                                                               | Nº   | 2                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....



***Bill № 3: Mechanical Engineering Services***

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 3                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 8                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 10                 |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 4: Electrical Engineering Services

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 40                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-



### Summary

| <u>Description</u>                                         | <u>Amount (US \$)</u> |
|------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....              | .....                 |
| Bill № 3: Mechanical Engineering Services .....            | .....                 |
| Bill № 4: Electrical Engineering Services .....            | .....                 |
| * Total Amount of Works for El Meniyeh Public Mixed School | .....                 |
| * Total Amount Carried to General Summary                  | .....                 |
| .....                                                      | .....                 |
| .....                                                      | .....                 |
| .....                                                      | .....                 |

## **1384 Qorsaita Second Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

Carried to Collection

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <b><u>CONCRETE</u></b><br><br><b>Reinforced Existing Columns and beams</b><br>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       | <b><u>Carried to collection</u></b> |                   |

Lebanese Emergency Assistant Project (LEAP)  
 Rehabilitation of Shelters

Bill of Quantities  
 Bill № 2: Civil and Architectural Works

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 4                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 1                  |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item  | Description                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>..... | Nº   | 20                 |                   |                |
| 5.2.6 | Rehabilitate and paint existing steel window<br><i>Rate or Lump Sum in Words:</i><br>.....         | Nº   | 5                  |                   |                |
| 5.1.3 | Rehabilitate aluminum windows<br><i>Rate or Lump Sum in Words:</i><br>.....                        | Nº   | 15                 |                   |                |



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 35                    |                      |                   |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 6.1.1   | <b><u>Rehabilitate Existing Kitchen Cupboards</u></b><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                           |      |                    |                   |                |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                    |                   |                |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | m    | 6                  |                   |                |
|         | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.1.3 | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br>If applicable carefully soften putty or remove wood trim and then remove glass.<br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 15                 |                   |                |
| 8.1.3.1.4 | Rehabilitate wooden windows and shutters<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |
| 8.2       | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1     | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 8.2.1.4   | Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nº   | 7                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 8.2.3   | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance. |      |                       |                      |                   |
| 8.2.3.1 | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                         | Nº   | 17                    |                      |                   |

**Carried to collection**

| Item    | Description                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                             |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b>                                                                       |                |                    |                   |                |
|         | Supply and install sand cement plaster on concrete and block wall surfaces as specified            |                |                    |                   |                |
|         | The plaster layer should be own a base rough layer                                                 |                |                    |                   |                |
|         | The plaster works should be on level points and each point should be at 1.5 m from the second only |                |                    |                   |                |
|         | Work to include:                                                                                   |                |                    |                   |                |
|         | - Materials and accessories (galvanized, wire mesh, cover beds, etc.)                              |                |                    |                   |                |
|         | - Labors                                                                                           |                |                    |                   |                |
|         | - All addition watering                                                                            |                |                    |                   |                |
|         | - All tools                                                                                        |                |                    |                   |                |
|         | - Plaster thickness more than 2 cm                                                                 |                |                    |                   |                |
|         | - All needed items as per drawings and the Engineer instructions                                   |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                  |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster           |                |                    |                   |                |
|         | Price included all accessories, material, scaffolding and labor, etc.                              | m <sup>2</sup> | 100                |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                  |                |                    |                   |                |
|         | .....                                                                                              |                |                    |                   |                |
|         | .....                                                                                              |                |                    |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2     | <p><b><u>Tiling Works</u></b></p> <p>Supply and install all tiling items for floors, with the skirting</p> <p>Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions</p> <p>Price to include:</p> <ul style="list-style-type: none"> <li>- Sand below tiles</li> <li>- Materials, tiles, mortars</li> <li>- Labors</li> <li>- Rubbing</li> <li>- Filling between tiles</li> <li>- Filling the skirting</li> <li>- Remove unsuitable items</li> <li>- Cleaning the places</li> <li>- All needed items as per the Engineer instructions</li> </ul>                                                                    |      |                    |                   |                |
| 9.2.2   | <p><b><u>New Glazed Colored Ceramic for Walls</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 9.2.2.1 | <p>Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m²   | 35                 |                   |                |
| 9.2.4   | <p><b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | m <sup>2</sup> | 600                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | m <sup>2</sup> | 300                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 3                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 3                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item          | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><u>Rate or Lump Sum in Words:</u><br>.....                                                                                                                                                                                                                               | Nº   | 4                  |                   |                |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | №    | 15                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               |                                                                                                                                                                                                                                                |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | №    | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               |                                                                                                                                                                                                                                                |      |                    |                   |                |

| Item     | Description                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10.3     | <b><u>Resin Work</u></b>                                                                                                                                 |      |                    |                   |                |
| 10.3.2   | <b><u>Lavatory Countertop</u></b>                                                                                                                        |      |                    |                   |                |
| 10.3.2.1 | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include: |      |                    |                   |                |
|          | - All fixing elements                                                                                                                                    |      |                    |                   |                |
|          | - All stainless steel hangers                                                                                                                            |      |                    |                   |                |
|          | - All necessary heavy duty accessories                                                                                                                   |      |                    |                   |                |
|          | - Counter edge of 30cm length                                                                                                                            |      |                    |                   |                |
|          | - All needed items and as instructed by the Engineer                                                                                                     | m    | 4                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                        |      |                    |                   |                |
|          | .....                                                                                                                                                    |      |                    |                   |                |
|          | .....                                                                                                                                                    |      |                    |                   |                |

| Item   | Description                                                                                                                                                                                                                                                                                                                                  | Unit           | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|----------------------|-------------------|
| 10.5   | <b><u>Internal Curtains</u></b><br>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval |                |                       |                      |                   |
| 10.5.1 | On External Opening<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 30                    |                      |                   |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                | Item | 1                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                           | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                     |      |                    |                   |                |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as detailed and specified. |      |                    |                   |                |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                          | Nº   | 6                  |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.1   | <b><u>W.C. for Kids</u></b><br>Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.<br>Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.<br><br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)                                                             |      |                    |                   |                |
| 5.1.1 | EWC-03 (Wall Hang - 52 x 32 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 3                  |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 6                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 4                  |                   |                |

| Item       | Description                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                      | Nº   | 6                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                           |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                       | Nº   | 1                  |                   |                |

**Carried to collection**

**Collection**

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         |                       |
|                                                        | .....                 |
|                                                        | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**



| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 15                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 10                 |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                        | <u>Amount (US \$)</u> |
|-----------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....             | .....                 |
| Bill № 3: Mechanical Engineering Services .....           | .....                 |
| Bill № 4: Electrical Engineering Services .....           | .....                 |
| * Total Amount of Works for Qorsaita Second Public School | .....                 |
| * Total Amount Carried to General Summary                 | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |

## **1385 -Al -Rihaniyeh Public School**

Bill of Quantities

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> | LS   | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
|       | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
|       | .....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |

Carried to Collection

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p>Rate or Lump Sum in Words:</p> <p>.....</p> <p>.....</p> | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       | <b><u>Carried to collection</u></b> |                   |



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 4                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 10                 |                   |                |
| 5.2.6 | Rehabilitate and paint existing steel window<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nº   | 10                 |                   |                |

Carried to collection

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3     | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |
| 8.1.3.1.1 | <p>Rehabilitate and paint existing single leaf timber doors with related accessories</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No   | 18                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2.3   | <p><b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b></p> <p>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.</p> |      |                    |                   |                |
| 8.2.3.1 | <p>Rehabilitate existing windows</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nº   | 24                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 50                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><i>Rate or Lump Sum in Words:</i><br/>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | m <sup>2</sup> | 200                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | m <sup>2</sup> | 100                |                   |                |

**Carried to collection**

| Item     | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10       | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| 10.1     | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|          | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|          | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|          | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|          | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|          | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| 10.1.1   | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1 | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 5                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |
| 10.1.2   | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1 | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 5                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |
| 10.1.3   | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1 | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|          | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|          | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 5                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|          |                                                                                                                                                                                    |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                       |                      |                   |
| 10.1.4.1 | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                      | Nº   | 2                     |                      |                   |



| Item          | Description                                                                                                                                                                                                                                                                                                                                                  | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                        |                |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm | Nº             | 1                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b>                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
|               | Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                                    |                |                    |                   |                |
| 10.5.1        | On External Opening                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 30                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                    |                   |                |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                    |                   |                |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                    | Nº   | 4                  |                   |                |
| 2.3.1 | Cover for FCO<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                  | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 3                     |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 8                  |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 6                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 1                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 1- GENERAL TECHNICAL REQUIREMENTS                      | .....                 |
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |



***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 40                 |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 8                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 4                  |                   |                |

**Carried to collection**

### Collection

| <u>Page №</u>                     | <u>Amount (US \$)</u> |
|-----------------------------------|-----------------------|
| 1- BASIC ELECTRICAL REQUIREMENTS  | -                     |
| 3- GENERAL LIGHTING INSTALLATIONS | -                     |
| Total Carried to Summary .....    | -                     |

### Summary

| <u>Description</u>                                     | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....          | .....                 |
| Bill № 3: Mechanical Engineering Services .....        | .....                 |
| Bill № 4: Electrical Engineering Services .....        | .....                 |
| * Total Amount of Works for Al Rihaniyeh Public School | .....                 |
| * Total Amount Carried to General Summary              | .....                 |
| .....                                                  | .....                 |
| .....                                                  | .....                 |
| .....                                                  | .....                 |

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

**General Summary Volume 3-4 (5 of 25 Schools)**

| اسم المدرسة                               | School Name               | BOQ- cost estimate<br>U.S.D | Civil & Architectural<br>U.S.D | Mechanical Services<br>U.S.D | Electrical Services<br>U.S.D |
|-------------------------------------------|---------------------------|-----------------------------|--------------------------------|------------------------------|------------------------------|
| القطين الرسمية المختلطة 500-              | 500 Kattine mixed         |                             |                                |                              |                              |
| بطرماز الرسمية المختلطة 502-              | 502 Btormaz mixed         |                             |                                |                              |                              |
| المنية الرسمية المختلطة 1336-             | 1336 Minnyeh mixed        |                             |                                |                              |                              |
| متوسطة قرصيتا الرسمية الثانية 1384-       | 1384 Korsayta intermidiat |                             |                                |                              |                              |
| الريحانية الرسمية المختلطة – المنية 1385- | 1385 Rihanyaet Minnyeh    |                             |                                |                              |                              |
| <b>TOTAL</b>                              |                           |                             |                                |                              |                              |

Total Amount Carried to Grand Summary

# **Lebanese Emergency Assistant Project (LEAP)**

## **Rehabilitation of Shelters**

**LEAP-SH-SW-MEHE- Batch 2**

**Lot 1**

**Miniyeh Package**

**Volume 3- 5 (4 of 25 Schools)**

Bill of Quantities

## **1546- Markebta Public School**

Bill of Quantities



---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 2                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 2                  |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                                                                                                  |      |                    |                   |                |
|         | <ul style="list-style-type: none"> <li>- Repair wood elements in accordance with AWI Quality Standards requirements.</li> <li>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.</li> <li>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.</li> <li>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.</li> </ul> |      |                    |                   |                |
| 6.1.1.1 | Kitchen Cupboards<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | m    | 6                  |                   |                |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.1.3     | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br>If applicable carefully soften putty or remove wood trim and then remove glass.<br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 12                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 100                |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> | LS   | 1                  |                   |                |
|         | <u>Rate or Lump Sum in Words:</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |      |                    |                   |                |

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 2: Civil and Architectural Works

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 500                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 250                |                   |                |

**Carried to collection**



| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                                                                                | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions                                                             |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                           | Nº   | 2                  |                   |                |
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                                                                                                                                                                               |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm<br><i>Rate or Lump Sum in Words:</i><br>..... | Nº   | 1                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                            | Nº   | 2                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3     | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1   | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2 | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                             | Nº   | 22                 |                   |                |

**Carried to collection**



**Collection**

Page №

Amount (US \$)

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                 | <u>Amount (US \$)</u> |
|----------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....      | .....                 |
| Bill № 3: Mechanical Engineering Services .....    | .....                 |
| Bill № 4: Electrical Engineering Services .....    | .....                 |
| * Total Amount of Works for Markebta Public School | .....                 |
| * Total Amount Carried to General Summary          | .....                 |
| .....                                              | .....                 |
| .....                                              | .....                 |
| .....                                              | .....                 |

## **1548 Taran Secondary Public School**

### Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>1</b>   | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>1.1</b> | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1      | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

Carried to Collection

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$)                   | Amount (US \$) |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------------------------|----------------|
| 3    | <p><b><u>CONCRETE</u></b></p> <p><b>Reinforced Existing Columns and beams</b><br/>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br/>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | ls   | 1                  |                                     |                |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |                    | <b><u>Carried to collection</u></b> |                |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 3                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nº   | 5                  |                   |                |



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 20                 |                   |                |

Carried to collection

| Item    | Description                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 6.1.1   | <b><u>Rehabilitate Existing Kitchen Cupboards</u></b><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval. |      |                    |                   |                |
|         | - Repair wood elements in accordance with AWI Quality Standards requirements.                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
|         | - Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.                                                                                                                                                                                                                             |      |                    |                   |                |
|         | - Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.                                                                                                                                                                                                                                                         |      |                    |                   |                |
|         | - Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal.                                                                                                                                                                                                    |      |                    |                   |                |
| 6.1.1.1 | Kitchen Cupboards                                                                                                                                                                                                                                                                                                                                                  | m    | 3                  |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
|         | .....                                                                                                                                                                                                                                                                                                                                                              |      |                    |                   |                |

**Carried to collection**

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8         | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 8.1.3     | <b><u>Rehabilitate the Existing Timber Doors</u></b><br>As stated in the Preambles of Item 8.1<br>In addition, rehabilitate the existing timber doors:<br>The minimum amount of existing timber should be removed to allow an effective repair to be formed.<br>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued & fixed.<br>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.<br>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.<br>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.<br>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).<br><br>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry & damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.<br><br>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.<br><br>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.<br><br>If applicable carefully soften putty or remove wood trim and then remove glass.<br><br>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.<br><br>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.<br><br>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.<br><br>Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br><br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware. |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><u>Rate or Lump Sum in Words:</u><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No   |                    | 19                |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.2     | <p><b><u>Aluminum Doors and Windows</u></b><br/>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:</p> <ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1   | <p><b><u>New Aluminum Panels (Double Glass)</u></b><br/>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                    |                   |                |
| 8.2.1.4 | <p>Replace existing elements by new single glazed aluminum windows (6mm) if the quantity of broken glass does not exceed 30% of whole building</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nº   | 3                  |                   |                |
| 8.2.3   | <p><b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br/>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.</p>                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 8.2.3.1 | <p>Rehabilitate existing windows</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Nº   | 3                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions                                                                                                                                                                                                                                                                                                                                                                                  |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 100                |                   |                |
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| 9.1.2.1 | Rehabilitate and repair cracked and damaged plaster indoor and outdoor<br>Work to include:<br>- Determine the location and remove all loose items around the area<br>- Remove the cracked plaster layer<br>- Remove the pulled out layers<br>- Clean the places with suitable materials<br>- Fill all cracks after widening by (No Suggestions) or approved equal.<br>- Remove loose and other deteriorated materials prior to the new repair.<br>Take special care not to damage the adjacent original materials.<br>Prepare mortar joints for installation of lateral reinforcement where it is required.<br>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.<br>Mix mortar with minimal amount of water (potable) prior to use.<br>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction. |                |                    |                   |                |

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
|      | <ul style="list-style-type: none"> <li>- Clear debris from crack by probing, brushing, and blowing.</li> <li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li> <li>Use as dry a mix as possible.</li> <li>Use stone bats to fill larger crack voids.</li> <li>Ensure mortar is forced into smaller/deeper cracks.</li> <li>Mortar grout will be fluid in order to flow into crack.</li> <li>Either grout bags or gravity flow shall be used depending on the conditions.</li> <li>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</li> <li>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</li> <li>Remove all tool marks with brush.</li> <li>- Apply the finish rough plaster layer</li> <li>- Install galvanized steel mesh 20 cm width at least</li> <li>- Apply the second smooth plaster layer</li> </ul> | LS   | 1                  |                   |                |
|      | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |      |                    |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.2     | <p><b><u>Tiling Works</u></b></p> <p>Supply and install all tiling items for floors, with the skirting</p> <p>Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions</p> <p>Price to include:</p> <ul style="list-style-type: none"> <li>- Sand below tiles</li> <li>- Materials, tiles, mortars</li> <li>- Labors</li> <li>- Rubbing</li> <li>- Filling between tiles</li> <li>- Filling the skirting</li> <li>- Remove unsuitable items</li> <li>- Cleaning the places</li> <li>- All needed items as per the Engineer instructions</li> </ul>                                                                    |      |                    |                   |                |
| 9.2.4   | <p><b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 700                |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 350                |                   |                |

**Carried to collection**



| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               | .....                                                                                                                                                                              |      |                    |                   |                |

| Item     | Description                                                                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 10.2     | Classroom Specialties                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 10.2.3   | <u>Signage</u>                                                                                                                                                                                                                                                                                                                                               |      |                    |                   |                |
| 10.2.3.1 | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include:<br>- Materials and labors<br>- Colors and shape to be as per engineer instruction<br>- Dimension: 20cm x 10cm | №    | 6                  |                   |                |
|          | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                                              | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 10.5   | <p><b><u>Internal Curtains</u></b></p> <p>Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings</p> <p>Works to include:</p> <ul style="list-style-type: none"> <li>- Materials</li> <li>- Labors</li> <li>- Heavy Duty Accessories</li> <li>- All needed works as per the Engineer instructions and approval</li> </ul> |                |                    |                   |                |
| 10.5.1 | <p>On External Opening</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                            | m <sup>2</sup> | 20                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

3- Concrete

5- METAL WORKS

6- WOOD AND PLASTICS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

| Item       | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>2</b>   | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>2.2</b> | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1      | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                             | Nº   | 2                  |                   |                |
| <b>2.3</b> | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions                                                                                    |      |                    |                   |                |
| 2.3.1      | Cover for FCO<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                           | Nº   | 2                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.1   | <b><u>W.C. for Kids</u></b><br>Supply and install K.G. W.C. Flush valve with cover as manufactured by Duravit - Bambi No. 018509 or approved equal, 35 cm height max. from finished floor with timber cover.<br>Cost to include all related connections angle valves and necessary accessories as per the Engineer instructions.<br><br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal)                                                             |      |                    |                   |                |
| 5.1.1 | EWC-03 (Wall Hang - 52 x 32 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 2                  |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 2                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 2                  |                   |                |

| Item       | Description                                                                                                                                                                                                                                                                                                                           | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5.7</b> | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer |      |                    |                   |                |
| 5.7.1      | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                      | Nº   | 2                  |                   |                |
| <b>5.8</b> | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified                                                                                                                                                                                           |      |                    |                   |                |
| 5.8.1      | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                       | Nº   | 1                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item   | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3      | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1    | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2  | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | Nº   | 6                  |                   |                |
| 3.1.5  | TYPE A1:<br>Installation of bulb light 30W, 4000k, 80 CRI<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                       | Nº   | 7                  |                   |                |
| 3.1.21 | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | Nº   | 10                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                        | <u>Amount (US \$)</u> |
|-----------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....             | .....                 |
| Bill № 3: Mechanical Engineering Services .....           | .....                 |
| Bill № 4: Electrical Engineering Services .....           | .....                 |
| * Total Amount of Works for Taran Secondary Public School | .....                 |
| * Total Amount Carried to General Summary                 | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |
| .....                                                     | .....                 |



## **1579 Baazkoun Public School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>1</b>   | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| <b>1.1</b> | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                    |                   |                |
| 1.1.1      | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                  |                   |                |

**Carried to Collection**

| Item | Description                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$)                | Amount<br>(US \$) |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|-------------------------------------|-------------------|
| 3    | <b><u>CONCRETE</u></b><br><br><b>Reinforced Existing Columns and beams</b><br>Supply, cast, install and vibrate concrete for columns and beams with bearing capacity 350kg/cm2 for cracked beams, repair rust steel and topping concrete.<br>Remove cracked covers, Clean rust steel, Finishing works with special grout material, all needed refurbishing works as per the Engineer instructions<br><i>Rate or Lump Sum in Words:</i><br>.....<br>..... | ls   | 1                     |                                     |                   |
|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       | <b><u>Carried to collection</u></b> |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 7                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                          | Nº   | 10                 |                   |                |
| 5.1.3 | Rehabilitate aluminum windows<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Nº   | 3                  |                   |                |

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.5   | <b><u>Rehabilitate and Maintain Steel Handrail</u></b><br>- Rehabilitate the existing metal handrail and remove the damaged members and replace by new<br>- Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply one layer of epoxy base paint<br>- Apply putty<br>- Apply epoxy paint as per specification<br>All needed items as per the Engineer instructions |      |                       |                      |                   |
| 5.5.2 | Wall Mounted<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                       | m    | 30                    |                      |                   |

| Item  | Description                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5.6   | <b><u>Steel Stair</u></b><br>Provide Galvanized Steel Stair with related platform as per drawings. Contractor to submit complete shop drawings with related calculation for approval.                                                                                                                                                                     |      |                    |                   |                |
| 5.6.1 | <b><u>Rehabilitate Steel Stair</u></b><br>Rehabilitate existing steel stair and remove damaged members and replace by new works to include:<br>- Materials similar to the existing<br>- Remove existing paint & clean deeply as per SSPC code and ISO 8501<br>- Apply epoxy paint as per specification<br>- All needed items as per Engineer instructions | LS   | 1                  |                   |                |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                       |      |                    |                   |                |

Carried to collection



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 6       | <b><u>WOOD AND PLASTICS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |      |                       |                      |                   |
| 6.1     | <b><u>Joinery Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |      |                       |                      |                   |
| 6.1.1   | <u>Rehabilitate Existing Kitchen Cupboards</u><br>Rehabilitate existing cupboards, cabinets, drawers, counters, etc., for the existing kitchen. Works to include replacing damaged elements, accessories, material, labor, equipment, maintaining support, change of the top of counter by new resin counter as specified, etc. As per engineer's approval.                                                                                                                                              |      |                       |                      |                   |
|         | - Repair wood elements in accordance with AWI Quality Standards requirements.<br>- Repair framing and sash members with mortise and Tenon joints. Ensure joints and connections are flush, hairline, and weather-tight.<br>- Scarf joints permitted when wood matches in color and grain texture. Form sills and stools in one piece.<br>- Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet allowing installation and dynamic movement of perimeter seal. |      |                       |                      |                   |
| 6.1.1.1 | Kitchen Cupboards<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                 | m    | 6                     |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> <p>Attach door frame and shims to perimeter opening to accommodate construction tolerances &amp; all irregularities.</p> <p>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.</p> |      |                    |                   |                |

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | №    | 21                 |                   |                |
| 8.2       | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.1     | <b><u>New Aluminum Panels (Double Glass)</u></b><br>Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |                    |                   |                |
| 8.2.1.1   | Provide new aluminum double glazed window & door panel<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | №    | 2                  |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | №    | 9                  |                   |                |

**Carried to collection**

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b><br>Supply and install sand cement plaster on concrete and block wall surfaces as specified<br>The plaster layer should be own a base rough layer<br>The plaster works should be on level points and each point should be at 1.5 m from the second only<br>Work to include:<br>- Materials and accessories (galvanized, wire mesh, cover beds, etc.)<br>- Labors<br>- All addition watering<br>- All tools<br>- Plaster thickness more than 2 cm<br>- All needed items as per drawings and the Engineer instructions |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster<br>Price included all accessories, material, scaffolding and labor, etc.<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                         | m <sup>2</sup> | 120                |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2     | <p><b><u>Tiling Works</u></b></p> <p>Supply and install all tiling items for floors, with the skirting</p> <p>Work to include all materials and labors and the Contractor should use all necessary rods and levels as per the Engineer instructions</p> <p>Price to include:</p> <ul style="list-style-type: none"> <li>- Sand below tiles</li> <li>- Materials, tiles, mortars</li> <li>- Labors</li> <li>- Rubbing</li> <li>- Filling between tiles</li> <li>- Filling the skirting</li> <li>- Remove unsuitable items</li> <li>- Cleaning the places</li> <li>- All needed items as per the Engineer instructions</li> </ul> |                |                    |                   |                |
| 9.2.1   | <p><b><u>New Full Mass Colored Ceramic for Floors</u></b></p> <p>Ceramic tiles and tilework as specified and detailed, installed complete; Including for substrate preparation, cement: sand screeds or plaster backing coats; setting, jointing and grouting; tile trim and accessories; sealants; and all other related ancillaries as indicated or required</p>                                                                                                                                                                                                                                                              |                |                    |                   |                |
| 9.2.1.1 | <p>Supply and install anti skid colored full mass ceramic tiles for classroom (first choice) for all floor toilets, kitchen and laboratory (existing and new)</p> <p>Rate or Lump Sum in Words: .....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                          | m <sup>2</sup> | 20                 |                   |                |
| 9.2.2   | <p><b><u>New Glazed Colored Ceramic for Walls</u></b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
| 9.2.2.1 | <p>Supply and install glazed colored ceramic for walls Include Ceramic Corner (first choice)</p> <p>Rate or Lump Sum in Words: .....</p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | m <sup>2</sup> | 30                 |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.2.4   | <b><u>Repair existing broken floor tiles and skirting (all types) and reinstall by new, similar to existing for all rooms and corridors</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| 9.2.4.1 | <p>Rehabilitate and repair all damaged and broken tiles, and skirting for any type (marble - ceramic - mosaic - Cement). Remove broken or damaged pieces to be replaced without affecting the adjacent undamaged areas</p> <p>Work to include:</p> <ul style="list-style-type: none"> <li>- Remove all debris as specified</li> <li>- All materials and labors</li> <li>- Difference tiles (shapes thickness, dimension, pattern) as needed.</li> <li>- Cutting and repair</li> <li>- Grouting</li> <li>- Polish and rubbing</li> <li>- All needed items as per Engineer comments and complete to Engineer approval.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                             | LS             | 1                  |                   |                |
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
|         | <p>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings</p> <p>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.</p> <p>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.</p> <p>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,</p> <p><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b></p> |                |                    |                   |                |
| 9.5.1.2 | <p>Super Rubber Paint for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | m <sup>2</sup> | 700                |                   |                |
| 9.5.1.4 | <p>Oil Paints for old walls and ceilings</p> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | m <sup>2</sup> | 350                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 2                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
|               |                                                                                                                                                                                    |      |                    |                   |                |



| Item     | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 10.1.4   | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                       |                      |                   |
| 10.1.4.1 | Mirror (Dimension as per site conditions and engineer instruction)<br><i>Rate or Lump Sum in Words:</i> .....<br>.....                                                                                                                                                                                                                         | Nº   | 4                     |                      |                   |

| Item          | Description                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.2</b>   | <b>Classroom Specialties</b>                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>10.2.1</b> | <b><u>White Teaching Boards</u></b>                                                                                                                                                                                                            |      |                    |                   |                |
| 10.2.1.1      | Supply and install White teaching boards from approved manufacturer as per specifications of Ministry of Education and Higher Education and corresponding to the site                                                                          |      |                    |                   |                |
|               | Cost to include:                                                                                                                                                                                                                               |      |                    |                   |                |
|               | - (3600mm x 1200mm) final dimensions as per site limitation                                                                                                                                                                                    |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Felt marker pens and eraser (12 marker pens + 2 erases for each white board)                                                                                                                                                                 |      |                    |                   |                |
|               | - Stainless Steel screws                                                                                                                                                                                                                       |      |                    |                   |                |
|               | - Remove the existing board                                                                                                                                                                                                                    |      |                    |                   |                |
|               | - All needed works as per the Engineer instructions                                                                                                                                                                                            | Nº   | 15                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |
| <b>10.2.3</b> | <b><u>Signage</u></b>                                                                                                                                                                                                                          |      |                    |                   |                |
| 10.2.3.1      | Supply and install sliding panel signs for all rooms high pressure laminate- HPL 1.2 cm thick movable inside a stainless steel rail 316 fixed on walls, letters to be vinyl printed with engraving for special need purpose, works to include: |      |                    |                   |                |
|               | - Materials and labors                                                                                                                                                                                                                         |      |                    |                   |                |
|               | - Colors and shape to be as per engineer instruction                                                                                                                                                                                           |      |                    |                   |                |
|               | - Dimension: 20cm x 10cm                                                                                                                                                                                                                       | Nº   | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                              |      |                    |                   |                |
|               | .....                                                                                                                                                                                                                                          |      |                    |                   |                |

| Item          | Description                                                                                                                                                                                                                                                                                                                                           | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| <b>10.3</b>   | <b><u>Resin Work</u></b>                                                                                                                                                                                                                                                                                                                              |                |                    |                   |                |
| <b>10.3.2</b> | <b><u>Lavatory Countertop</u></b>                                                                                                                                                                                                                                                                                                                     |                |                    |                   |                |
| 10.3.2.1      | Supply and install complete counter for lavatories in toilets where shown on drawings to be of 12mm resin layer as per drawings and the work to include:<br>- All fixing elements<br>- All stainless steel hangers<br>- All necessary heavy duty accessories<br>- Counter edge of 30cm length<br>- All needed items and as instructed by the Engineer | m              | 4                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |
| <b>10.5</b>   | <b><u>Internal Curtains</u></b>                                                                                                                                                                                                                                                                                                                       |                |                    |                   |                |
|               | Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings<br><br>Works to include:<br>- Materials<br>- Labors<br>- Heavy Duty Accessories<br>- All needed works as per the Engineer instructions and approval                                             |                |                    |                   |                |
| 10.5.1        | On External Opening                                                                                                                                                                                                                                                                                                                                   | m <sup>2</sup> | 30                 |                   |                |
|               | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                   |                |                    |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

|                                     |       |
|-------------------------------------|-------|
| 1-Demolishing and Removal of Debris | ..... |
| 2- SITE PREPARATION AND DEMOLITION  | ..... |
| 3- Concrete                         | ..... |
| 5- METAL WORKS                      | ..... |
| 6- WOOD AND PLASTICS                | ..... |
| 7- THERMAL AND MOISTURE PROTECTION  | ..... |
| 8- DOORS AND WINDOWS                | ..... |
| 9- FINISHES                         | ..... |
| 10- SPECIALTIES                     | ..... |
|                                     | ..... |
|                                     | ..... |
| Total Carried to Summary .....      | ..... |
|                                     | ..... |

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>GENERAL TECHNICAL REQUIREMENTS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                         |      |                       |                      |                   |
| 1.2   | <b><u>Rehabilitation Works General Requirements</u></b><br>Provide all necessary rehabilitation works and make all Mechanical systems in good condition complete including maintenance, cleaning, relocation works, replacing damaged items and equipment, removing and carting away resulting materials and equipment, testing and commissioning, and all other related works to ensure all Mechanical systems are properly working and functional. |      |                       |                      |                   |
| 1.2.1 | Maintenance and rehabilitation of existing plumbing works, including sanitary fixtures, floor drains, roof drains, manholes, pumps, WC tanks, adding where applicable all necessary valves, flush valves, etc., and all other necessary works.                                                                                                                                                                                                       | Item | 1                     |                      |                   |
|       | <i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                  |      |                       |                      |                   |

**Carried to collection**

| Item  | Description                                                                                                                                                                                                                                                                                                  | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                                                                                                        |      |                    |                   |                |
| 2.2   | <b><u>Floor Drain</u></b><br>Supply and install floor drain P.V.C. with chrome plated brass drain cover and to be the same level as the floor and do all necessary installation and connections. This includes all civil works and connection to the proper floor pipes and as per the Engineer instructions |      |                    |                   |                |
| 2.2.1 | FD-01: Ø75 mm bottom outlet<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                           | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 6                     |                      |                   |

**Carried to collection**



| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 5.2   | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1 | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 5                  |                   |                |
| 5.6   | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1 | Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nº   | 4                  |                   |                |
| 5.7   | <b><u>Wall Type Self Close Taps on Drinking Basins</u></b><br>Supply and install self close taps to be fixed in the drinking basin body as manufactured by Grohe Item No. 36-176 with all required works and drain accessories including trap and to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                             |      |                    |                   |                |
| 5.7.1 | Wall Type Self Close Taps<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nº   | 4                  |                   |                |

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                                 | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 5.8   | <b><u>Kitchen Sink Accessories</u></b><br>Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified |      |                       |                      |                   |
| 5.8.1 | Kitchen Sink Accessories<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 1                     |                      |                   |

**Carried to collection**

### Collection

Page №

Amount (US \$)

1- GENERAL TECHNICAL REQUIREMENTS

2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION

4- FIRE PROTECTION

5- SANITARY FIXTURES

Total Carried to Summary .....

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 1     | <p><b><u>BASIC ELECTRICAL REQUIREMENTS</u></b></p> <p>The Contractor should revise all the drawings and compare them with the site conditions and redo all the design works with the necessary calculations for all the electrical installations and works. Moreover, the Contractor should submit shop drawings and as-built drawings for the maintenance use in the future.</p> <p>The contractor should provide all the necessary maintenance works for all Electrical systems related to the KG school to ensure its proper works.</p> <p>At the end of the project, the contractor should submit complete As-Built Drawings for all executed works with exact dimensions &amp; sizes for easy maintenance work in the future.</p> |      |                    |                   |                |
| 1.1   | <p><b><u>Fixing and Repairing</u></b></p> <p>Check &amp; repair all the existing cables, wires, socket outlets, lighting fixtures, lighting switches, electric fans, and protect all exposed wiring as per the site conditions, and to the satisfaction of the Engineer.</p> <p>All as per the drawings, specifications and Engineer instructions</p>                                                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 1.1.1 | <p>Lighting fixtures</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | LS   | 1                  |                   |                |
| 1.1.2 | <p>Wires and cables</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | LS   | 1                  |                   |                |
| 1.1.3 | <p>Sockets and switches</p> <p><i>Rate or Lump Sum in Words:</i></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | LS   | 1                  |                   |                |

**Carried to collection**

| Item                                | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3                                   | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1                                 | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2                               | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                      | №    | 15                 |                   |                |
| 3.1.21                              | Type F3 Similar to existing fixtures in toilets but LED<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                         | №    | 10                 |                   |                |
| <b><u>Carried to collection</u></b> |                                                                                                                                                                                                                                                                                                                                                                                               |      |                    |                   |                |

**Collection**

Page №

Amount (US \$)

1- BASIC ELECTRICAL REQUIREMENTS

-

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                  | <u>Amount (US \$)</u> |
|-----------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....       | .....                 |
| Bill № 3: Mechanical Engineering Services .....     | .....                 |
| Bill № 4: Electrical Engineering Services .....     | .....                 |
| * Total Amount of Works for Baazakoun Public School | .....                 |
| * Total Amount Carried to General Summary           | .....                 |
| .....                                               | .....                 |
| .....                                               | .....                 |
| .....                                               | .....                 |



## **1586 - Wissam Eid Public Secondary School**

Bill of Quantities

---

## **Table of Contents**

### **Description**

Bill № 2: Civil and Architectural Works  
Bill № 3: Mechanical Engineering Services  
Bill № 4: Electrical Engineering Services  
Summary

***Bill № 2: Civil and Architectural Works***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 1     | <b><u>SITE PREPARATION AND DEMOLITION</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                       |                      |                   |
| 1.1   | <b><u>Demolishing and Removal of Debris</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |                       |                      |                   |
| 1.1.1 | <p>The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following:</p> <ul style="list-style-type: none"> <li>- Existing plastering and concrete items such as foundations, columns, slabs, etc.</li> <li>- Damaged Tiling (floors and walls)</li> <li>- Toilet fixtures and pipes installation of all sizes</li> <li>- Counter tops, bases and sinks</li> <li>- Water tanks of different types</li> <li>- Hollow concrete block walls or concrete walls of all sizes</li> <li>- Demolition of the existing ramps / Stairs and the execution of the given plans and specifications</li> <li>- Including the necessary equipment for the removal of debris and all resulting materials</li> <li>- etc.</li> </ul> <p><i>Rate or Lump Sum in Words:</i></p> <p>.....</p> <p>.....</p> | LS   | 1                     |                      |                   |

Carried to Collection

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 5     | <b><u>METAL WORKS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |                    |                   |                |
| 5.2   | <b><u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u></b><br>Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction<br><br>Work to include:<br>- Remove all damaged members and replace by new ones<br>- Rub completely to secure all parts and use putty to make faces smooth<br>- Apply two layers of anti rust paint<br>- Apply putty<br>- Apply three layers of epoxy external paint<br>- All needed items as per the Engineer instructions |      |                    |                   |                |
| 5.2.1 | Rehabilitate existing steel doors<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 2                  |                   |                |
| 5.2.2 | Rehabilitate existing steel gates<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nº   | 1                  |                   |                |
| 5.2.4 | Rehabilitate existing burglar proof steel protection<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 15                 |                   |                |

Carried to collection

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 8     | <b><u>DOORS AND WINDOWS</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| 8.1.3 | <p><b><u>Rehabilitate the Existing Timber Doors</u></b></p> <p>As stated in the Preambles of Item 8.1</p> <p>In addition, rehabilitate the existing timber doors:</p> <p>The minimum amount of existing timber should be removed to allow an effective repair to be formed.</p> <p>Cut out deteriorated area of timber in sloping splice to give optimum area of surface to be glued &amp; fixed.</p> <p>Well-seasoned timber to be used in forming a repair with the line and density of grain (number of growth rings) of new timber matching the existing as closely as possible.</p> <p>For all joinery work, timber with shakes, fissures, warping, heartwood, sapwood or numerous/large knots should be avoided for use in repair.</p> <p>Always work new material to the line of the existing and avoid unnecessary trimming of original timber.</p> <p>Repairs should follow any existing deformations in the line of the wood element (e.g. door or window).</p> <p>Avoid mixing timber species between new and existing in a repair as joint between the two is likely to fail from different rates of expansion and contraction during dry &amp; damp conditions. Where possible, spliced repairs to be designed to ensure moisture is towards the outer face of timber and that moisture does not lay on the repair joint.</p> <p>The length of the splice is governed by section of timber and the nature of component being repaired and it should be designed to ensure an effective bond between new and existing sections of timber.</p> <p>Where wood element are to be dismantled as part of the repair process, always mark and record the constituent parts before dismantling. similarly, number of glass panes/quarries before removal.</p> <p>If applicable carefully soften putty or remove wood trim and then remove glass.</p> <p>Use glue, to connect a new outer section of bottom rail to the existing sound timber. Drill and insert new wooden pins or fix using brass screws from inside.</p> <p>Casements or sashes are often in sound condition but the joints have become loose due to the break down of glue and loose wedges.</p> <p>The wedges will often be easily removable and will probably be unsuitable for re-use. It may be for the joints to be pulled together successfully.</p> |      |                    |                   |                |

| Item      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
|           | Attach door frame and shims to perimeter opening to accommodate construction tolerances & all irregularities.<br>Align door plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent work. Install operating hardware.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |      |                    |                   |                |
| 8.1.3.1.1 | Rehabilitate and paint existing single leaf timber doors with related accessories<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Nº   | 15                 |                   |                |
| 8.2       | <b><u>Aluminum Doors and Windows</u></b><br>Fabricate, supply and install aluminum works as manufactured by SIDEM 2000 first choice with all necessary accessories as per the drawings and the Engineer instructions, cost to include all doors and windows:<br><br><ul style="list-style-type: none"> <li>- Reveals hard stone 3cm thick, all around for external opening</li> <li>- Apply EPDM around door and windows where necessary</li> <li>- Single glass 6 mm</li> <li>- Double glass 6-12-6 mm (Outer Glass should be Tempered)</li> <li>- Hinges and locks</li> <li>- Joint Filler</li> <li>- Mosquito Screen</li> <li>- Mesh</li> <li>- All items needed as per the Engineer instructions</li> <li>- All as specified and base on an approved shop drawings after exact dimensions</li> </ul> |      |                    |                   |                |
| 8.2.3     | <b><u>Rehabilitation Existing Glazed Aluminum Panels (s)</u></b><br>Replacing Broken Glass. Fixing Hardware Issues: Check the functionality of latches, hinges, and other hardware. If any parts are broken, replace them with new ones to ensure the window operates smoothly. After repairs, apply a high-quality sealant around the edges to prevent moisture intrusion. If the paint is peeling or faded, consider repainting the frame with a metal paint formulated for aluminum to enhance durability and appearance.                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 8.2.3.1   | Rehabilitate existing windows<br><i>Rate or Lump Sum in Words:</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Nº   | 24                 |                   |                |

**Carried to collection**

| Item    | Description                                                                                        | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|----------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9       | <b><u>FINISHES</u></b>                                                                             |                |                    |                   |                |
| 9.1     | <b><u>Cement Plaster</u></b>                                                                       |                |                    |                   |                |
|         | Supply and install sand cement plaster on concrete and block wall surfaces as specified            |                |                    |                   |                |
|         | The plaster layer should be own a base rough layer                                                 |                |                    |                   |                |
|         | The plaster works should be on level points and each point should be at 1.5 m from the second only |                |                    |                   |                |
|         | Work to include:                                                                                   |                |                    |                   |                |
|         | - Materials and accessories (galvanized, wire mesh, cover beds, etc.)                              |                |                    |                   |                |
|         | - Labors                                                                                           |                |                    |                   |                |
|         | - All addition watering                                                                            |                |                    |                   |                |
|         | - All tools                                                                                        |                |                    |                   |                |
|         | - Plaster thickness more than 2 cm                                                                 |                |                    |                   |                |
|         | - All needed items as per drawings and the Engineer instructions                                   |                |                    |                   |                |
| 9.1.1   | <b><u>Internal and External Plaster Works</u></b>                                                  |                |                    |                   |                |
| 9.1.1.1 | Supply and apply one layer of sand cement plaster over a rough textured layer of plaster           |                |                    |                   |                |
|         | Price included all accessories, material, scaffolding and labor, etc.                              | m <sup>2</sup> | 40                 |                   |                |
|         | <i>Rate or Lump Sum in Words:</i>                                                                  |                |                    |                   |                |
|         | .....                                                                                              |                |                    |                   |                |
|         | .....                                                                                              |                |                    |                   |                |



| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 9.1.2   | <b><u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |      |                    |                   |                |
| 9.1.2.1 | <p>Rehabilitate and repair cracked and damaged plaster indoor and outdoor</p> <p>Work to include:</p> <ul style="list-style-type: none"><li>- Determine the location and remove all loose items around the area</li><li>- Remove the cracked plaster layer</li><li>- Remove the pulled out layers</li><li>- Clean the places with suitable materials</li><li>- Fill all cracks after widening by (No Suggestions) or approved equal.</li><li>- Remove loose and other deteriorated materials prior to the new repair.</li></ul> <p>Take special care not to damage the adjacent original materials.</p> <p>Prepare mortar joints for installation of lateral reinforcement where it is required.</p> <p>Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar.</p> <p>Mix mortar with minimal amount of water (potable) prior to use.</p> <p>All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction.</p> <ul style="list-style-type: none"><li>- Clear debris from crack by probing, brushing, and blowing.</li><li>- Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes.</li></ul> <p>Use as dry a mix as possible.</p> <p>Use stone bats to fill larger crack voids.</p> <p>Ensure mortar is forced into smaller/deeper cracks.</p> <p>Mortar grout will be fluid in order to flow into crack.</p> <p>Either grout bags or gravity flow shall be used depending on the conditions.</p> <p>Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application.</p> <p>Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface.</p> <p>Remove all tool marks with brush.</p> <ul style="list-style-type: none"><li>- Apply the finish rough plaster layer</li><li>- Install galvanized steel mesh 20 cm width at least</li><li>- Apply the second smooth plaster layer</li></ul> <p><u>Rate or Lump Sum in Words:</u></p> | LS   | 1                  |                   |                |

| Item    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Unit           | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------------|-------------------|----------------|
| 9.5     | <b><u>Painting</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                |                    |                   |                |
| 9.5.1   | <b><u>Wall and Ceilings Paint Works</u></b><br>Wall paint include preparation of the base surfaces to receive the paints and apply the specified layers of putty and paint from the best quality as per specifications and as indicated in drawings<br>The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.<br>Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.<br>All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,<br><b><i>All paint types must be <u>lead-free</u> and <u>Low VOC</u> (Volatile Organic Compounds)</i></b> |                |                    |                   |                |
| 9.5.1.2 | Super Rubber Paint for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | m <sup>2</sup> | 1,200              |                   |                |
| 9.5.1.4 | Oil Paints for old walls and ceilings<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | m <sup>2</sup> | 600                |                   |                |

**Carried to collection**

| Item          | Description                                                                                                                                                                        | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10</b>     | <b><u>SPECIALTIES</u></b>                                                                                                                                                          |      |                    |                   |                |
| <b>10.1</b>   | <b><u>Bathrooms Accessories</u></b>                                                                                                                                                |      |                    |                   |                |
|               | - Remove and cart away old damaged fixtures                                                                                                                                        |      |                    |                   |                |
|               | - Supply and install all needed accessories and make good their places and their surroundings                                                                                      |      |                    |                   |                |
|               | - Place all frame, cover joints (stainless steel) anti-corrosion                                                                                                                   |      |                    |                   |                |
|               | - Install items and their contact with the surfaces                                                                                                                                |      |                    |                   |                |
|               | - All works should be done as per the Engineer instructions                                                                                                                        |      |                    |                   |                |
| <b>10.1.1</b> | <b><u>Paper Roller Holder</u></b>                                                                                                                                                  |      |                    |                   |                |
| 10.1.1.1      | Supply and install paper holder no rust, no stain stainless steel 316 with all accessories and fixation (anti-rust materials) for good quality and at the places shown on drawings |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.2</b> | <b><u>Soap Dispenser</u></b>                                                                                                                                                       |      |                    |                   |                |
| 10.1.2.1      | Supply and install stainless steel 316 no rust, no stain, soap dispenser wall type fixation (anti-rust materials and accessories) with all needed items                            |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |
| <b>10.1.3</b> | <b><u>Paper Holder Box</u></b>                                                                                                                                                     |      |                    |                   |                |
| 10.1.3.1      | Supply and install paper holder box from stainless steel 316 no rust, no stain, with all needed works and fixation (anti-rust materials and accessories)                           |      |                    |                   |                |
|               | The box should be from a good manufacturer                                                                                                                                         |      |                    |                   |                |
|               | All works should be done as the Engineer instructions                                                                                                                              | Nº   | 6                  |                   |                |
|               | <i>Rate or Lump Sum in Words:</i>                                                                                                                                                  |      |                    |                   |                |

**Lebanese Emergency Assistant Project (LEAP)**  
**Rehabilitation of Shelters**

**Bill of Quantities**  
**Bill № 2: Civil and Architectural Works**

| Item          | Description                                                                                                                                                                                                                                                                                                                                    | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>10.1.4</b> | <b><u>Mirror for Lavatories</u></b><br>Supply and install 6mm glass mirror for lavatories with colored PVC frames as show on drawings and as stated in the specifications with all needed items and accessories<br><br>The mirror should be placed on 3mm thick plywood from the back<br>All works should be done as the Engineer instructions |      |                    |                   |                |
| 10.1.4.1      | Mirror (Dimension as per site conditions and engineer instruction)<br><u>Rate or Lump Sum in Words:</u><br>.....                                                                                                                                                                                                                               | Nº   | 2                  |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

1-Demolishing and Removal of Debris

5- METAL WORKS

8- DOORS AND WINDOWS

9- FINISHES

10- SPECIALTIES

Total Carried to Summary .....

***Bill № 3: Mechanical Engineering Services***

| Item  | Description                                                                                                                                                                                                               | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 2     | <b><u>SANITARY, WASTE &amp; RAIN WATER PIPE WORK INSTALLATION</u></b>                                                                                                                                                     |      |                    |                   |                |
| 2.3   | <b><u>Drain Cover</u></b><br>Supply and install floor drain cover (P.E)<br>5 mm thick on drainage pipe and to be the same level of the floor tiling. Work to include all civil works and as per the Engineer instructions |      |                    |                   |                |
| 2.3.1 | Cover for FCO<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                      | Nº   | 4                  |                   |                |

**Carried to collection**

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

Bill of Quantities  
Bill № 3: Mechanical Engineering Services

| Item  | Description                                                                                                                          | Unit | Estimated<br>Quantity | Unit Rate<br>(US \$) | Amount<br>(US \$) |
|-------|--------------------------------------------------------------------------------------------------------------------------------------|------|-----------------------|----------------------|-------------------|
| 4     | <b><u>FIRE PROTECTION</u></b>                                                                                                        |      |                       |                      |                   |
| 4.1   | <b><u>Portable Fire Extinguisher</u></b><br>Supply and install dry chemical portable fire extinguisher as<br>detailed and specified. |      |                       |                      |                   |
| 4.1.2 | FE-02 (4.5Kg CO2)<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                             | Nº   | 8                     |                      |                   |

**Carried to collection**



| Item       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| <b>5</b>   | <b><u>SANITARY FIXTURES</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |      |                    |                   |                |
| <b>5.2</b> | <b><u>W.C. For Non Kids</u></b><br>Supply and install W.C. for non kids, Flush valve with cover as manufactured by Ideal Standard Item No. E876801 also the hose, or approved equal and to be 40 cm from floor finish with timber cover.<br>The work to include the installation, liking, cleaning with all necessary connection, angle valves and necessary accessories similar to the K.G.W.C.<br>Each W.C. should be equipped with a Flushing Hose (Grohe or Ideal standard or approved equal) |      |                    |                   |                |
| 5.2.1      | EWC-01 (Wall Hang - 52 x 36 cm)<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 6                  |                   |                |
| <b>5.6</b> | <b><u>Self Close Taps on Kids &amp; Students Lavatories</u></b><br>Supply and install self close taps to be fixed in the lavatory body as manufactured by Grohe Item No. 36-173 with all required works and drain accessories including trap, to be connected to the new water supply and drain and as instructed by the Engineer                                                                                                                                                                 |      |                    |                   |                |
| 5.6.1      | Self Close Taps<br><i>Rate or Lump Sum in Words:</i><br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nº   | 5                  |                   |                |

**Carried to collection**

**Collection**

| <u>Page №</u>                                          | <u>Amount (US \$)</u> |
|--------------------------------------------------------|-----------------------|
| 2- SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION | .....                 |
| 4- FIRE PROTECTION                                     | .....                 |
| 5- SANITARY FIXTURES                                   | .....                 |
| Total Carried to Summary .....                         | .....                 |

***Bill № 4: Electrical Engineering Services***

| Item  | Description                                                                                                                                                                                                                                                                                                                                                                                   | Unit | Estimated Quantity | Unit Rate (US \$) | Amount (US \$) |
|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------------------|-------------------|----------------|
| 3     | <b><u>GENERAL LIGHTING INSTALLATIONS</u></b>                                                                                                                                                                                                                                                                                                                                                  |      |                    |                   |                |
| 3.1   | <b><u>Lighting Fixtures</u></b><br>Supply, install and test the lighting fixtures complete with all the necessary wires conduits, boxes and accessories required to provide power to each lighting fitting from LP including the earth wire as per the drawings, specifications and Engineer instructions.<br><br>The Contractor should submit samples of each lighting fixture for approval. |      |                    |                   |                |
| 3.1.2 | Replace existing lighting fixtures with C1<br><i>Rate or Lump Sum in Words:</i><br>.....<br>.....                                                                                                                                                                                                                                                                                             | No   | 12                 |                   |                |

**Carried to collection**

**Collection**

Page №

Amount (US \$)

3- GENERAL LIGHTING INSTALLATIONS

-

Total Carried to Summary .....

-

### Summary

| <u>Description</u>                                                | <u>Amount (US \$)</u> |
|-------------------------------------------------------------------|-----------------------|
| Bill № 2: Civil and Architectural Works .....                     | .....                 |
| Bill № 3: Mechanical Engineering Services .....                   | .....                 |
| Bill № 4: Electrical Engineering Services .....                   | .....                 |
| * Total Amount of Works for Wissam Eid Public<br>Secondary School | .....                 |
| * Total Amount Carried to General Summary                         | .....                 |
| .....                                                             | .....                 |
| .....                                                             | .....                 |
| .....                                                             | .....                 |

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters

**General Summary Volume 3-5 (4 of 25)**

| اسم المدرسة                                  | School Name     | BOQ- Cost Estimate<br>U.S.D | Civil & Architectural<br>U.S.D | Mechanical Services<br>U.S.D | Electrical Services<br>U.S.D |
|----------------------------------------------|-----------------|-----------------------------|--------------------------------|------------------------------|------------------------------|
| ثانوية مركبتا الرسمية - 1546                 | 1546 Markebta   |                             |                                |                              |                              |
| ثانوية طاران الرسمية - 1548                  | 1548 Taran      |                             |                                |                              |                              |
| بعزقون الرسمية المختلطة - 1579               | 1579 Baazkoun   |                             |                                |                              |                              |
| ثانوية الشهيد الرائد وسام عيد الرسمية - 1586 | 1586 Wissam Eid |                             |                                |                              |                              |
|                                              |                 |                             |                                |                              |                              |
| <b>TOTAL</b>                                 |                 |                             |                                |                              |                              |

Total Amount Carried to Grand Summary

Lebanese Emergency Assistant Project (LEAP)  
Rehabilitation of Shelters  
Batch # 2 - LOT 1  
Grand Summary

| nr. | Description              | BOQ- Cost Estimate<br>U.S.D |
|-----|--------------------------|-----------------------------|
|     | General Requirment       |                             |
| 1   | Volume 3 - 1 (4 schools) |                             |
| 2   | Volume 3 - 2 (5 schools) |                             |
| 3   | Volume 3 - 3 (5 schools) |                             |
| 4   | Volume 3 - 4 (5 schools) |                             |
| 5   | Volume 3 - 5 (4 schools) |                             |
|     | <b>Total</b>             |                             |