



REPUBLIC OF LEBANON
COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters (Public Schools)

Batch 3: Lot 1
in Caza of Baalbek

VOLUME 3
BILL OF QUANTITIES

September 2026



Rafik El - Khoury & Partners
Consulting — Engineers



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters

Bill of Quantities
General summary

Cost Summary - Batch 3 Lot 1 (Zone 1 - Baalbeck)

School Code	School Name	Amount (US \$)
General Requirements (applicable to all schools in this Lot)		
	Provisional Sum	\$50,000.00
875	متوسطة عرسال الأولى المختلطة	
878	متوسطة عرسال الثالثة الرسمية	
883	حلبنا الرسمية المختلطة	
885	ثانوية الفاكهة الرسمية	
886	متوسطة الفاكهة الرسمية	
887	ثانوية راس بعلبك الرسمية	
888	متوسطة راس بعلبك الرسمية	
894	الزيتون الرسمية	
908	ثانوية دير الاحمر الرسمية	
909	متوسطة دير الاحمر الرسمية	
932	الشرافنة الرسمية	
954	الخرية المتوسطة الرسمية المختلطة	
964	متوسطة معربون الرسمية	
968	متوسطة سليم حيدر الرسمية	
1423	متوسطة عرسال الرسمية الثانية	
1633	مدرسة عرسال الرسمية الخامسة	
1638	مدرسة عرسال الرسمية السادسة	
Total Amount of Bid — Lot 1		



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Lot 1 - Baalbeck — Preamble & General Requirements (Applicable to All Schools in this Lot)

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Preamble

Bill № 1: General Requirements

Preamble



Item	Description
1	<u>INTRODUCTION</u>
1.01	This is a Lump Sum Contract.
1.02	The estimated quantities set-out in the Bill of Quantities are indicative, and the actual and correct quantities needed for the execution of the Works are the sole responsibility of the Contractor. All executed and accepted Works shall be paid to the Contractor at the corresponding lump sum or rates on the estimated quantities shown in this Bill of Quantities.
1.03	Only modifications, omissions or additions in extent of work, ordered by the Employer in accordance with the Conditions of the Contract, shall be measured and paid for as executed, completed and accepted by the Employer, and shall be calculated as an addition or deduction to the Lump Sum of the Contract on the basis of the Contract rates or approved rates to be presented by the Contractor for non priced new items.
1.04	Where an item is found to have already been carried out by the Employer, the school, or any other party, the Project Manager will issue a Variation omitting it; the omission is valued from the priced BOQ and the Contract Price will be reduced accordingly, with no entitlement to loss of profit or to extension of time. This will require a dated pre-condition photographic evidence before works begin at each school during Site Handing Over.
1.05	Contractor will be paid only for works actually executed by the Contractor and certified by the Project Manager, and requires the Contractor to submit, within 5 calendar days of the Site Handing Over of each School, a modified priced BOQ per school for use in works valuation and the valuation of any omission.
1.06	The Project Manager shall not certify the value of any item not executed by the Contractor, including any item dealt with as an omission.



Item	Description
1.07	The items and the estimated quantities in the Breakdown of the Lump Sum do not necessarily contain full description of the required Works, the Contractor shall allow in his unit rates for any additional quantity and all obligations, liabilities and services stipulated in the relevant sections of all Contract Documents to provide and maintain a complete construction and installation of each item.
1.08	Before Pricing the Contract, the Contractor shall visit the Sites and shall satisfy himself as to the meaning and to the estimated quantity of each item in the Bill of Quantities. The rates inserted by the Contractor shall be deemed to cover all costs, expenses, risks, liabilities, obligations and services described in the Contract Documents, the full quantity and cost of the Works of each item as observed on Site, including all direct and indirect expenses, sundry labors, overhead and profit, and all matters for the proper construction, completion and maintenance of the Works.
1.09	The Bills of Quantities are to be read and construed in association with the Specification and this Preamble. Information which is given in the Specification is identified by cross references included in the descriptions of work in the Bill of Quantities.
1.10	The Contractor shall allow in his rates for protecting all Works against damage by whatever method deemed necessary and approved. Any work damaged during the Works shall be replaced or made good at the Contractor's expense and to Employer's satisfaction before the Works are handed over.
1.11	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.
1.12	Unless the term meter, used in this Preamble, is proceeded by the words square or cubic it is deemed to be linear.



Item	Description
1.13	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.
2	<u>QUANTITIES</u>
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
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.
3	<u>DESCRIPTIONS</u>
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.



Item	Description
3.04	Unless otherwise specifically stated in the Bill of Quantities or herein, the following are deemed to be included in all work: - labor and all costs in construction therewith, - materials, products, goods and all costs in connection therewith, - Contractor's equipment, including but not limited to construction plant, scaffolding, tools, vehicles and the like and all costs in connection therewith, - assembling, fitting and fixing materials, products and goods in position, - any method of fixing, fixing to any nature of base or background including preparation and providing fixing materials, - breaking down for transport and installation and subsequent reassembly of composite items manufactured off - waste of materials, - square, raking and curved cutting, - work at any location or height, - work in small, isolated quantities, - protection of all work, - 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, - all other enabling tasks associated and subsidiary components and items of work which are indicated or reasonably inferred from the Specification and necessary to perform and complete the work described, - establishment and overhead charges and profit.



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Item	Description
3.05	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 - site administration and security, - insurances, - bonds and guarantees, - water for the Works, - lighting and power for the Works, - temporary accommodation for the use of the Contractor and the Engineer, - temporary telephones and the cost of calls for the use of the Contractor and the Engineer, - temporary roads, hard standings, crossings and the like, - temporary fencing, hoardings, screens, fans, footways, guardrails, gantries and the like, - giving notices and making applications, including the payment of fees and charges in connection therewith, - safety, health and welfare of workpeople, - compliance with traffic regulations - maintenance of public and private roads, services and adjoining property, - control of noise and pollution, prevention of fire and compliance with all other statutory and general obligations, - removing rubbish, protective casings and coverings, and cleaning the Works on completion, - drying the Works, - testing and commissioning of service installations including the provision of fuel, - samples of materials and testing of materials including providing equipment for testing,

Item	Description
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- design, co- ordination, installation and as- built record drawings and the like,

- preparation and submittal of reports, records, certificates, notices, proposals, designs, details, calculations and other information and data required by the Specification,

- allow in unit rates for all other requirements, services, provisions, liabilities and obligations contained in the General Requirements and Conditions of Contract.

- Maintaining, adapting, clearing away and making good are deemed to be included with the items for temporary works.

- 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.

4 SYMBOLS, ABBREVIATIONS & DEFINITIONS

4.01 The following symbols and abbreviations are used in this Preamble and in the Bills of Quantities:

Lump Sum	LS
Linear Meter	m
Square Meter	m ²
Cubic Meter	m ³
Centimeter	cm
Millimeter	mm
Number	Nº
Kilogramme	kg
Tonne	T
Percentage	%
Nominal Diameter	Φ
Quantity	Qty
Drawing	Drg / Dwg
Mega Pascal	MPa

4.02 The following definitions apply to all work:

- 'horizontal' means level or sloping work not exceeding 15° from the horizontal
- 'sloping' means sloping work exceeding 15° but not exceeding 80° to the horizontal,



Item	Description
	- 'vertical' means work exceeding 80° from the horizontal, - '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.
4.03	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.
5	<u>MECHANICAL ENGINEERING SERVICES PREAMBLE</u>
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
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.



Item	Description
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.
6	<u>ELECTRICAL ENGINEERING SERVICES PREAMBLE</u>
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 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.



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Item	Description
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
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.
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. (cables are measured separately)



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Item	Description
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

Bill № 1: General Requirements



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Lot 1 - Baalbeck — Preamble & General Requirements (Applicable to All Schools in this Lot)

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

The General Requirements items shall be priced by the Contractor and shall not be considered included in the rates for Works items elsewhere in the Bill of Quantities as these Works items may be subject to omissions as described in the Preamble and in the Conditions of Contract.

1 Preliminaries

1.01 Insurance

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

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

LS 1

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 1

Lump Sum in Words:

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1.03	<u>Mobilization and Demobilization</u> Mobilization to site and demobilization on completion of <i>Lump Sum in Words:</i> 	LS	1		
1.04	<u>Water for the Works</u> Provide until handing over, clean and uncontaminated Water for the Works and suitable for all purposes, complete including coordination with all relevant authorities, transportation to site, pipework, pumps, connections and storage facilities where necessary. <i>Lump Sum in Words:</i> 	LS	1		
1.05	<u>Electrical Power for the Works</u> Provide all necessary adequate Electrical Power Supply required for the Works until handing over using silent generated power, complete including all necessary connections, fuel, maintenance, and if main power is available, allow for all necessary coordination and connections with relevant local authorities, and for all charges and fees incurred during the total duration of the Contract. <i>Lump Sum in Words:</i> 	LS	1		
1.06	<u>Protection Fence with Access</u> Provide, maintain and remove upon completion of works, a protection fence around the Works and where needed, with necessary access, to the satisfaction of the Engineer, and in accordance with the Conditions of Contract and relevant authorities' regulations. <i>Lump Sum in Words:</i> 	LS	1		
1.07	<u>Directional and Safety Site Signage</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Provide, maintain and remove upon completion of works, directional and safety signage around the Works and where needed, complete all as specified, shown on approved shop drawings, to the satisfaction of the Engineer, and in accordance with the Conditions of Contract and relevant authorities' regulations.	LS	1		
	<i>Lump Sum in Words:</i>				
1.08	<u>Safety Procedures and Protection</u> Provide all necessary safety procedures and protection on site to all facets of work, to staff workmen, and to third party, in accordance with the Conditions of Contract, CDR Safety, Health and Environmental Regulations, and all other local Authorities Standards and Regulations.	LS	1		
	<i>Lump Sum in Words:</i>				
1.09	<u>Daily Cleaning during Construction</u> Execute daily cleaning to keep the work, site and adjacent properties free from accumulations of waste material, rubbish and windblown debris, resulting from construction operations, complete including removing from the site periodically and disposing off at legal approved disposal areas away from the site, in full coordination with the	LS	1		
	<i>Lump Sum in Words:</i>				
1.10	<u>Coordination with School Administration, MEHE and Other Authorities</u> Coordinate work with School Administration, MEHE, & other applicable Authorities, and abide by their regulations.	LS	1		
	<i>Lump Sum in Words:</i>				
3	<u>Additional Items</u> The Contractor shall list and describe 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.				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
3.01	<i>Lump Sum in Words:</i>	LS	1		
3.02	<i>Lump Sum in Words:</i>	LS	1		
3.03	<i>Lump Sum in Words:</i>	LS	1		
3.04	<i>Lump Sum in Words:</i>	LS	1		
3.05	<i>Lump Sum in Words:</i>	LS	1		



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Collection

Page №

Amount (US \$)

1.1	
1.2	
1.3	
1.4	

Total Carried to General Summary	
	

SCHOOL NO.

875

متوسطة عرسال الاولى المختلطة



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

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>..... 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors : Paint	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
					
5.2.6	Rehabilitate and paint existing steel window				
	Windows Handles	Nº	4		
	Window Glass	Nº	3		
	<i>Rate or Lump Sum in Words:</i>				
					



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
	- Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
	- All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№	3		
	<i>Rate or Lump Sum in Words:</i>				
					
					

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				
	Paint wooden doors & frames	Nº	46		
	Doors Handles	Nº	66		
	Doors Lock	Nº	26		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
.....					
8.2	<u>Aluminum Doors and Windows</u>				
8.2.2	<u>New Aluminum Internal Door</u>				
	Supply and install aluminum door with frame and related strengthening stud, Works to include:				
	Materials, and accessories				
	- Labors				
	- All needed items as per the engineer instructions.				
	- Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated.	No	1		
	<i>Rate or Lump Sum in Words:</i>				
.....					
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
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	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.				
	Repair Tiling above doors	Pcs	5		
	Repair walls skirting	lm	3		
	<i>Rate or Lump Sum in Words:</i>				
.....					

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	4,525		
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u> - 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				
10.1.4	<u>Mirror for Lavatories</u> 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) <i>Rate or Lump Sum in Words:</i>	No	3		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	13		
	<i>Rate or Lump Sum in Words:</i>				
10.5	<u>Internal Curtains</u>				
	Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening	Pcs	14		
	<i>Rate or Lump Sum in Words:</i>				
11	<u>EQUIPMENT</u>				
11.1	EQUIPMENT ATHLETIC COURTS (BASKET BALL NET, BACKBOARD AND SUPPORTS)				
11.1.1	Proprietary game court equipment, fixtures and accessories to engineers' approval. Provided and installed complete, including for support anchorages and inserts hardware, accessories, trim and all other related ancillaries as indicated or required.				
	Replace kids slider	Nº	3		
	Replace Merry-go Wheel	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة عرسال الاولى المختلطة 875

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Toilet seat Lid	Item	2		
	Install new flushing system for the toilet seat	Item	13		
	Floor drain cover	Item	17		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	New Sobyra (x1 in each class)	Item	25		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u>				
	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				
	Handheld bidet sprayer	No	8		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)

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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	25		
5.8	<u>Kitchen Sink Accessories</u> Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories: Mixer <i>Rate or Lump Sum in Words:</i>	Nº	1		



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Bill № 4: Electrical Engineering Services



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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: Lamps	Pcs	50		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches				
	Electrical outlet cover	Pcs	12		
	Electrical outlet	Pcs	15		
	<i>Rate or Lump Sum in Words:</i>				



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SCHOOL NO.

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متوسطة عرسال الرسمية الثالثة



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Paint metal door	№	1		
	Glass for metal door	№	2		
	Rate or Lump Sum in Words:				
					



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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				
	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				
	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				
	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				
	Paint wooden door	Nº	21		
	Door Handles x2	Nº	42		



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	Door Lock	Nº	21		
	<i>Rate or Lump Sum in Words:</i>				
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u>				
	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	34		
	Window Handles	Nº	2		
	Glass for aluminum windows	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor				
	Work to include:				
	- Determine the location and remove all loose items around the area				
	- Remove the cracked plaster layer				
	- Remove the pulled out layers				
	- Clean the places with suitable materials				
	- Fill all cracks after widening by (No Suggestions) or approved equal.				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	- Remove loose and other deteriorated materials prior to the new repair. - Take special care not to damage the adjacent original materials. - Prepare mortar joints for installation of lateral reinforcement where it is required. - Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. - Mix mortar with minimal amount of water (potable) prior to use. - All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction. - Clear debris from crack by probing, brushing, and blowing. - Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. - Use as dry a mix as possible. - Use stone bats to fill larger crack voids. - Ensure mortar is forced into smaller/deeper cracks. - Mortar grout will be fluid in order to flow into crack. - Either grout bags or gravity flow shall be used depending on the conditions. - Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. - Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. - Remove all tool marks with brush. - Apply the finish rough plaster layer - Install galvanized steel mesh 20 cm width at least - Apply the second smooth plaster layer	Item	2		
	Rate or Lump Sum in Words:				

9.5 **Painting**

9.5.1 **Wall and Ceilings Paint Works**

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

The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.

Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	2,795		



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	10		
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	10		



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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	30		
1.1.9	All needed electrical works ... etc. Provide new Projector <i>Rate or Lump Sum in Words:</i>	Pcs	1		



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>..... 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Glass for the window section of a door	Nº	3		
	Paint metal doors	Nº	3		
	<i>Rate or Lump Sum in Words:</i>				
					

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u> Supply and install all timber work with all related items The joinery works should be of the first class type and as per specifications and drawings Work to include: - Material and labors - All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.) - The frame for any width (Steel, Wood, etc.) - Paint as follows: - Anti rust layers - Putty + one layer of undercoat - Three layers of epoxy paint - Apply and fix 6mm wired clear glass - View Permitting glass opening where needed - remove the existing timber panels - repair the edges - The Contractor should submit shop drawings - All needed items as the Engineer instructions				
8.1.1	<u>Timber Doors</u> 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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <i>Rate or Lump Sum in Words:</i>	№	1		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 <u>Rate or Lump Sum in Words:</u>..... 	No	13		

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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,				
	All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	1,220		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
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	3		
	<i>Rate or Lump Sum in Words:</i>				

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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
12	<u>FURNISHINGS</u>				
12.1	INSTITUTIONAL FURNITURE Supply and install the following institutional furniture complete including all necessary fixing and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
	Replacement of projector screen	No	2		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u>				
	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				
	Handheld bidet sprayers	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
					
					



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>SOLAR SYSTEM</u>				
8.1	Supply, install, connect and test the solar lighting system for all Electrical Loads (excluding Lifts, Pumps and AC Units) in perfect operating conditions, including but not - Photovoltaic multi-crystalline solar panels as shown on the drawings. - Hybrid Inverter - All cables, wires, conduits and all necessary accessories - Aluminum PV mountings - The Contractor shall ensure complete solar system which should function as the main Power Supply - The Contractor should submit detailed shop drawings and materials for approval. - For all blocks of the schools - Lithium Batteries for (Off-Grid Solar Types) - All necessary elevated structures on roof and other areas which are needed to install the required solar panel as mentioned on drawings (Sheds, Parking, etc.) areas				
	Solar Panel batteries	Pcs	8		
	<i>Rate or Lump Sum in Words:</i>				



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SCHOOL NO.

885

ثانوية الفاكهة الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
ثانوية الفاكية الرسمية 885

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i> 	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.1	<u>Rehabilitate Precast Concrete Tiles similar to existing</u>				
2.1.1	Supply and install precast concrete tiles similar to existing. Samples should be Provided for approval. The works - Labor, material and equipment: Broken or damaged pieces to be replaced, then cleaning & leveling; without affecting the adjacent undamaged areas - The tiles will be made using wear resistant materials in the face mix. The colors and shapes of the blocks (wearing layer) shall be as per engineer instructions. - The bedding and joint sand shall be clean non plastic, and free from deleterious or foreign matter. - The sub-base and base layers should be well compacted to the engineer approval - The necessary fill below tiles to be approved and well cleaned before spreading to the right level while according proper attention to any needed electro-mechanical inserts and accessories. - Installation of tiles - All works needed as per specifications and the Engineer instructions <i>Rate or Lump Sum in Words:</i> 	m²	1		



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.2	<u>Rehabilitate Existing Curbstone</u>				
2.2.1	Rehabilitate existing Curbstone as per specifications and works include: - Remove all loose parts or damaged parts and re-install new ones as existing, without affecting the adjacent undamaged areas - Casting concrete behind curbstone - Handicapped Concrete Units - materials - All works needed as per specifications and the Engineer instructions	m	1		
	<i>Rate or Lump Sum in Words:</i>				
2.3	<u>Existing Walkways</u>				
2.3.1	Repair existing walkways at project site boundary; precast concrete paver tiles, bases courses, etc., as necessary, where damaged or distributed by new construction without affecting the adjacent undamaged areas; make good and joint at junction with new precast concrete paving and/or curbing as required and to Engineer's approval.	LS	1		
	<i>Rate or Lump Sum in Words:</i>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.4.2	<u>Rehabilitate Existing Fence (Strengthening & Rehabilitation)</u> Work to include - Rehabilitate and support all the existing fence as per - Determine the places that requires support - Preparation of shop drawings - Replace all broken elements - Redo all damaged elements and to be similar to existing elements - Finishing works as existing (plastering, paints, stone cladding, etc.) - Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified) - Replace existing chain link by new one (Galvanized) - 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 Rate or Lump Sum in Words:	m	1		
2.4.3	Rehabilitate TOT cladding taking into consideration the required height in order to make a visual prevention from outside to inside the school. Works to include all accessories, fixations, replacing the damaged and bad panels, etc., all as per engineer instructions. Rate or Lump Sum in Words:	m	1		
2.5	<u>Ramp for External Existing Sidewalk</u>				
2.5.1	Supply and install external pedestrian ramp as per approved shop drawing submitted by contractor Work to include: - Remove parts of sidewalk including curbstone and existing tiles - Remove the debris to outside the site - Submit detailed shop drawing compatible with ADA requirements - Supply and install concrete curbstone for the ramp - Supply and install floor tiles identical to the existing with mortar and all layers - All needed items as per the Engineer instructions Rate or Lump Sum in Words:	LS	1		

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.7	<u>Rehabilitate Existing Steel Bollards (Car Stop)</u>				
2.7.1	Rehabilitate Steel Bollards Work Include: - Replace damaged parts by new one similar to existing (Size, shape, etc.) - Paint as specified - Labor and materials - All needed parts as per the engineer instruction <i>Rate or Lump Sum in Words:</i>	№	1		
2.8	<u>Rehabilitate Concrete Benches (Existing Cast in Place)</u>				
2.8.1	Rehabilitate existing damaged concrete benches as per site conditions (including all variable sizes). All works to be determined and to include necessary equipment, labor, material, accessories, paint, etc., and as per engineer's approval. Clean the rehabilitated places by removing all debris and make good all the edges and remove all broken slabs & failed slabs and remove to outside the site all the debris & refused items, cast proper concrete in places where the removal of all debris took place Work to include: - Removal and cleaning the location - Materials, fill - Labors - Make good the surfaces - Lining as per site instructions - All needed refurbishing works as per the Engineer instructions <i>Rate or Lump Sum in Words:</i>	lm	1		
2.9	<u>Rehabilitation of Playground Slabs (External Playground)</u>				

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2.9.1	Clean the rehabilitated places by removing all debris and make good all the edges and remove all broken slabs & failed slabs and remove to outside the site all the debris & refused items, cast proper concrete in places where the removal of all debris took place (No patching is allowed for the existing concrete surfaces) Work to include: - Removal and cleaning the location - Materials, fill - Labors - Make good the surfaces - Lining and marking all playgrounds as per site instructions - All needed refurbishing works as per the Engineer instructions <i>Rate or Lump Sum in Words:</i>	m ²	1		
4	<u>MASONRY</u>				
4.1	<u>Hollow or Solid Concrete Blocks and Claustra</u> Supply and install concrete blocks as per drawings Work to include: - All places as per the drawings, and the Engineer instructions. - Materials - Cement mortar and the use of extruded nets and reinforcement by means of metal gates and the placement of angles of galvanized steel iron of concrete columns thickness of 4 mm every 60 cm - Labors and all items needed and instructions by the Engineer				
4.1.4	15 cm hollow concrete blocks Repair and reinstatement of the plumbing shaft and surrounding concrete/masonry damaged by intensive use of the sanitary facilities. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
5.2.6	Rehabilitate and paint existing steel window New Glass (1x1.4)	№	1		
	<i>Rate or Lump Sum in Words:</i>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.5	<u>Rehabilitate and Maintain Steel Handrail</u>				
	- Rehabilitate the existing metal handrail and remove the damaged members and replace by new - Reinforce the existing handrail with similar members in addition to the rail and all necessary accessories - Remove existing paint & clean deeply as per SSPC code and ISO 8501 - Apply one layer of epoxy base paint - Apply putty - Apply epoxy paint as per specification - All needed items as per the Engineer instructions				
5.5.2	Wall Mounted Supply and install metal handrails on the two right-side walls, matching the existing handrails installed on the left- <i>Rate or Lump Sum in Words:</i>	m	12		
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.1	<u>Roof Waterproofing</u>				
7.1.1	Works should be applied and done by experts with previous experience in similar works. Works to include: - DEEP cleaning of all surfaces and carting away of dust & debris - Concrete pad for water tanks as indicated - Sand cement screed layer to Provide proper slopes minimum 0.75% - Expansion joint sealant to be done respecting back rod, unbonding tape, adequate thickness of sealant, type & finish of sealant (fire rated) & design drawings especially on roof & planters. - Provide tackle coat (Proper) - Provide 4mm thick, SBS layer from an approved manufacturer - Provide protection for all pipe works and drains - Provide heat insulation layers of 35 KG/m³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings There's a serious water leakage problem coming from the roof and walls that need to be addressed, causing the leakage to get to classes and internal walls <i>Rate or Lump Sum in Words:</i>	LS	1		

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
	- Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
	- All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№	2		
	<i>Rate or Lump Sum in Words:</i>				
					
					

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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				
	Paint wooden doors & frames	Nº	32		
	Replace Doors Handles	Nº	22		
	Repair wooden door & frame	Nº	9		
	<i>Rate or Lump Sum in Words:</i>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.1	<u>New Aluminum Panels (Double Glass)</u> Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be				
8.2.1.1	Provide new aluminum double glazed window & door panel	Nº	10		
	<i>Rate or Lump Sum in Words:</i>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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, mainly water leakage	Nº	30		
	Replace Glass (2x1m)	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor Work to include: - Determine the location and remove all loose items around the area - Remove the cracked plaster layer - Remove the pulled out layers - Clean the places with suitable materials - Fill all cracks after widening by (No Suggestions) or approved equal. - Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction. - Clear debris from crack by probing, brushing, and blowing. - Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fil Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush. - Apply the finish rough plaster layer - Install galvanized steel mesh 20 cm width at least - Apply the second smooth plaster layer Repair plaster around wooden frame	Item	1		
	Plaster	m2	10		

Rate or Lump Sum in Words:
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.2	<u>Tiling Works</u>				
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	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.				
	Repair Ceramic Tiles	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 2 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	6,129		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	Install new flushing system for toilet seat	Item	20		
	Water Tank Lid (cistern cover)	Item	1		
	Repair Sanitary/plumbing	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
3	<u>WATER PIPE WORK INSTALLATION</u>				
3.2	<u>Electrical Water Heater</u> Electrical water heater as specified and scheduled; include pipe work connections, temperature and pressure gauges, control and power wiring from the MCC, hot water and pipe work connections, control and high limit control valves, isolation and safety valves, thermal insulation, valve boxes, bonding and identification, and the heater should be of a good trade mark of European or west made or first class Lebanese product.				
3.2.2	EWB-02 (100 L)	No	1		
	<i>Rate or Lump Sum in Words:</i>				

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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	6		
					
5.8	<u>Kitchen Sink Accessories</u> Supply and install kitchen sink accessories such as chrome trap, angle valve, mixers as specified				
5.8.1	Kitchen Sink Accessories <i>Rate or Lump Sum in Words:</i>	Nº	2		
					



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Amount (US \$)

3.1
3.2

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Bill № 4: Electrical Engineering Services



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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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1 **BASIC ELECTRICAL REQUIREMENTS**

1.1 **Fixing and Repairing**

Check & 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.

All as per the drawings, specifications and Engineer instructions

1.1.3 Sockets and switches: outlets & Covers Pcs 4

Rate or Lump Sum in Words:
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General Summary

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General Summary

General Summary

Description

Amount (US \$)

Bill № 2: Civil and Architectural Works

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* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

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متوسطة الفاكه الرسمية



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Bill № 3: Mechanical Engineering Services

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.3	<u>Rehabilitate Existing Steel Shed Works</u> Rehabilitate the existing steel elements of the existing shed and the work to include: - Remove existing cover (Asbestos, TOT, etc.) and to be dismantled and carted away to outside the site. - Brick tiles to be disassembled and removed and stored in appropriate location as per engineer's instruction and to checked for reused if needed - Clean, rub and repaint all steel structure and do the necessary reinforcement - Damaged steel structure to be replaced with new steel structure similar to existing. - Support and add new beams similar to existing. - Remove existing paint & clean deeply as per SSPC code and ISO 8501 - Apply base and epoxy as specified - Supply the roof covers as per drawings - Install the galvanized steel gutter (No Welded) and all Steel pipe works - Corrugated Metal sheet flashing between walls and shed roof with mastic - All needed items as per the Engineer instructions				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.3.1	Rehabilitate and strength steel sheds and replace existing sheet by insulated sandwich panel <i>Rate or Lump Sum in Words:</i>	m ²	125		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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.				



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



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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				
	Paint wooden door & frame (x7 doors)	Nº	7		
	Repair door	Nº	7		
	Handles (2)	Nº	14		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
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	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.				
	Repair wall tiling	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i> 	m ²	840		
9.5.6	<u>Epoxy coating (Playground -covered indoor Car Parking)</u>				
9.5.6.1	Supply and install of epoxy layers heavy duty, Suitable for covering floors, to reach 350 microns thick. Including cleaning, grinding while keeping a relatively rough surface adequate for bonding of epoxy layers. Removal of debris, filling of cracks and irregularities with the compatible putty. Cost includes all materials, equipment and labors as requested. Color to be approved by the engineer and all that is required as per specifications. Including marking work as shown on drawings All works and items should be as per manufacturer and the Engineer instructions and approval <i>Rate or Lump Sum in Words:</i> 	m ²	250		
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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 <i>Rate or Lump Sum in Words:</i> 	Nº	7		

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Bill № 3: Mechanical Engineering Services



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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	2		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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	No	5		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 2: Civil and Architectural Works

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1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc.	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	New Glass panels	№	2	
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u> Supply and install all timber work with all related items				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	The joinery works should be of the first class type and as per specifications and drawings Work to include: - Material and labors - All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.) - The frame for any width (Steel, Wood, etc.) - Paint as follows: - Anti rust layers - Putty + one layer of undercoat - Three layers of epoxy paint - Apply and fix 6mm wired clear glass - View Permitting glass opening where needed - remove the existing timber panels - repair the edges - The Contractor should submit shop drawings - All needed items as the Engineer instructions				
8.1.1	<u>Timber Doors</u> 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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <i>Rate or Lump Sum in Words:</i> 	No	1		
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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.				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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 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 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 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 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	Paint wooden door	No	13	
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	90		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	№	13		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Handles for metal door	Nº	2		
	Lock for metal door	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.1	<u>Roof Waterproofing</u>				
7.1.1	Works should be applied and done by experts with previous experience in similar works. Works to include: - DEEP cleaning of all surfaces and carting away of dust & debris - Concrete pad for water tanks as indicated - Sand cement screed layer to Provide proper slopes minimum 0.75% - Expansion joint sealant to be done respecting back rod, unbonding tape, adequate thickness of sealant, type & finish of sealant (fire rated) & design drawings especially on roof & planters. - Provide tackle coat (Proper) - Provide 4mm thick, SBS layer from an approved manufacturer - Provide protection for all pipe works and drains - Provide heat insulation layers of 35 KG/m³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings <u>Rate or Lump Sum in Words:</u>	LS	1		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				
	Paint wooden door + frame (x9 doors)	Nº	9		
	Replace Doors Handles	Nº	6		
	Replace Door Lock	Nº	3		
	<i>Rate or Lump Sum in Words:</i>				
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u>				
	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 or doors	Nº	4		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.10	<u>Laminate Vinyl Tiles</u>				
9.2.10.1	Provide Laminate Vinyl Tiles similar to existing. The removal of existing vinyl tiles, rolls, proper levelling, surfacing of the existing concrete by casting a special layer of new concrete to ensure proper installation of the new vinyl layer as specified and as per standards. Price to include skirting	m²	150		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,				
	All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				

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9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	2,094		
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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 <i>Rate or Lump Sum in Words:</i>	Nº	13		
11	<u>EQUIPMENT</u>				
11.1	EQUIPMENT ATHLETIC COURTS (BASKET BALL NET, BACKBOARD AND SUPPORTS)				
11.1.1	Proprietary game court equipment, fixtures and accessories to engineers' approval. Provided and installed complete, including for support anchorages and inserts hardware, accessories, trim and all other related ancillaries as indicated or required. Provide new kids outdoor equipments such as: Slider - Swing - Merry-go Wheel, balance beam. <i>Rate or Lump Sum in Words:</i>	LS	1		
12	<u>FURNISHINGS</u>				
12.1	INSTITUTIONAL FURNITURE Supply and install the following institutional furniture complete including all necessary fixing and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
12.1.1	Classrooms Furniture				
		New TV	Nº	1	
					



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Bill № 3: Mechanical Engineering Services



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Replacement of irrigation hose for the trees, surrounding all the school	lm	100		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New similar street lights <i>Rate or Lump Sum in Words:</i>	Pcs	5		
7	<u>CCTV SYSTEM</u>				
	Supply, install, connect and test CCTV system complete with conduits installations from the location of the NVR through the different CCTV camera outlets, including the pull or draw boxes and derivation boxes, the junction and outlet boxes, 19" Rack, and all necessary connections to the management station as shown on drawings as per Tender Specifications and the like to the satisfaction of the				
7.1	All necessary connections from different location to the proposed NVR location <i>Rate or Lump Sum in Words:</i>	LS	1		
7.2	CCTV Provision Outlets: Cameras <i>Rate or Lump Sum in Words:</i>	Nº	7		



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1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. Rate or Lump Sum in Words:	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.8	<u>Rehabilitate Concrete Benches (Existing Cast in Place)</u>				
2.8.1	Rehabilitate existing damaged concrete benches as per site conditions (including all variable sizes). All works to be determined and to include necessary equipment, labor, material, accessories, paint, etc., and as per engineer's approval. Clean the rehabilitated places by removing all debris and make good all the edges and remove all broken slabs & failed slabs and remove to outside the site all the debris & refused items, cast proper concrete in places where the removal of all debris took place Work to include: - Removal and cleaning the location - Materials, fill - Labors - Make good the surfaces - Lining as per site instructions - All needed refurbishing works as per the Engineer instructions Replacement of wooden bench slats for outdoor benches (2.0 m length) Rate or Lump Sum in Words:	Pcs	8		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
6	<u>WOOD AND PLASTICS</u>				
6.1	<u>Joinery Works</u>				
6.1.1	<u>Rehabilitate Existing Kitchen Cupboards</u> 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 doors	Pcs	6		
	<u>Rate or Lump Sum in Words:</u>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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				
	Paint wooden door	№	5		
	Repair wooden doors	№	4		

Rate or Lump Sum in Words:

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,				
	All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	332		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
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>				
10.7	<u>Sound Insulation Board with Protection on Walls</u>				

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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.7.1	Supply and install Sound Insulation Board with Protection inside Special needs classrooms as per drawings & engineer instructions, works to include: - Materials - Labor - Fixation - Colors as per Engineer instructions	m ²	93		
	<i>Rate or Lump Sum in Words:</i>				
					



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Bill № 3: Mechanical Engineering Services



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Replacement of kitchen water filter.	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	New Sobyra	Item	5		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary

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* Total Amount of Bill of Quantities

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SCHOOL NO.

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Bill № 2: Civil and Architectural Works



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc.	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors	Glass for metal door	№	1	
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
					

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				
	Doors Handles (x2 for each door)	Nº	29		
	Doors Locks	Nº	15		
	<u>Rate or Lump Sum in Words:</u>				

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.1	<u>New Aluminum Panels (Double Glass)</u> 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 <i>Rate or Lump Sum in Words:</i>	№	2		
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 Replace Glass panels <i>Rate or Lump Sum in Words:</i>	№	6		
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	1,860		

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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u>				
	- 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				
10.1.4	<u>Mirror for Lavatories</u>				
	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	1		
	<i>Rate or Lump Sum in Words:</i>				
					
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
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	3		
	<i>Rate or Lump Sum in Words:</i>				
					



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.5	<u>Internal Curtains</u> Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening <i>Rate or Lump Sum in Words:</i>	Pcs	10		



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Bill № 3: Mechanical Engineering Services



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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1 GENERAL TECHNICAL REQUIREMENTS

1.2 Rehabilitation Works General Requirements

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.

New Flushing sytem for toilet seat	Item	1
Maintenance of Sanitary/plumbing work	Item	1
Install new floor drain cover	Item	1

Rate or Lump Sum in Words:
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5 SANITARY FIXTURES

5.4 Lavatories for Non Kids

Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.

- 5.4.2 LAV-02 (wall hang, handicapped with mixers 56 x 41 cm) № 1

Rate or Lump Sum in Words:
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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	2		
5.11	<u>Showers Tray</u> Supply and install shower tray as specified including shower mixers, shower head and all necessary accessories				
5.11.2	SH-02 (only mixers & shower hand) <i>Rate or Lump Sum in Words:</i>	Nº	8		



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Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New lamps	Pcs	60		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches				
	Electrical switch cover	Pcs	2		
	<i>Rate or Lump Sum in Words:</i>				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>	LS	1		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <i>Rate or Lump Sum in Words:</i>	Nº	1		
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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.				



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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 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 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 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 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				
	Door Handles	Nº	16		
	Door Lock	Nº	15		
	Paint door + frame	Nº	14		
	Repair wooden door & frame	Nº	14		

Rate or Lump Sum in Words:

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9	<u>FINISHES</u>				
9.2	<u>Tiling Works</u>				
9.2.7	<u>Clean and Rub the Existing Floor Tiles and Skirting</u> Rehabilitate any type of flooring tiles and skirting (ceramic - mosaic - etc.) Work to include: - All materials and labors - Grouting - Polish and rubbing - All needed items as per the Engineer instruction as specified				
9.2.7.3	Type 3: Mosaic <i>Rate or Lump Sum in Words:</i>	m ²	495		
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	2,750		
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u> - 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				



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.1.4	<u>Mirror for Lavatories</u> 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) <i>Rate or Lump Sum in Words:</i>	Nº	1		
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
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 <i>Rate or Lump Sum in Words:</i>	Nº	15		



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u> 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.				
	Install new flushing systems for toilet seats	Item	10		
	Toilet seat lid	Item	2		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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	No	12		
	<i>Rate or Lump Sum in Words:</i>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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	No	7		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
الشرارة الرسمية 932

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i>..... 	LS	1		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <i>Rate or Lump Sum in Words:</i>..... 	Nº	4		



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
الشراونة الرسمية 932

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				
	Paint wooden door + frame	Nº	20		
	Doors Handles (2)	Nº	2		
	Doors Lock	Nº	1		
	Repair wooden door & frame	Nº	16		
	<i>Rate or Lump Sum in Words:</i>				



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.1	<u>New Aluminum Panels (Double Glass)</u> Supply and install the fabricated aluminum panels with double glass (6 - 12 - 6 mm) (Outer Glass should be Tempered)				
8.2.1.3	Replace existing windows by new double glazed aluminum <i>Rate or Lump Sum in Words:</i>	№	2		
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 Replace Glass for windows <i>Rate or Lump Sum in Words:</i>	№	80	№	6
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 2 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	3,662		



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
الشرائط الرسمية 932

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	9		
	<i>Rate or Lump Sum in Words:</i>				



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Amount (US \$)

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Bill № 3: Mechanical Engineering Services



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
3	<u>WATER PIPE WORK INSTALLATION</u>				
3.2	<u>Electrical Water Heater</u> Electrical water heater as specified and scheduled; include pipe work connections, temperature and pressure gauges, control and power wiring from the MCC, hot water and pipe work connections, control and high limit control valves, isolation and safety valves, thermal insulation, valve boxes, bonding and identification, and the heater should be of a good trade mark of European or west made or first class Lebanese product.				
3.2.2	EWB-02 (100 L) <i>Rate or Lump Sum in Words:</i>	Nº	1		
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	Nº	35		



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Amount (US \$)

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Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
932 الشراونة الرسمية

Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New lamps	Pcs	28		
	Neon lights	Pcs	252		
	<i>Rate or Lump Sum in Words:</i>				
1.1.3	Sockets and switches	Pcs	2		
	<i>Rate or Lump Sum in Words:</i>				

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Amount (US \$)

4.1

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General Summary



General Summary

Description

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Bill № 3: Mechanical Engineering Services

Bill № 4: Electrical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

954

الخريفة المتوسطة الرسمية المختلطة

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General Summary

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
	- Remove all damaged members and replace by new ones				
	- Rub completely to secure all parts and use putty to make faces smooth				
	- Apply two layers of anti rust paint				
	- Apply putty				
	- Apply three layers of epoxy external paint				
	- All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Paint metal doors + frames	Nº	7		
	Repair metal doors	Nº	6		
	Lock for metal doors	Nº	1		
	Handles for metal doors	Nº	4		
	Rate or Lump Sum in Words:				
5.2.2	Rehabilitate and paint existing steel gates	Nº	2		
	Rate or Lump Sum in Words:				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
954 الخريطة المتوسطة الرسمية المختلطة

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.2.6	Rehabilitate and paint existing steel window Replace Glass window	№	2		
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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				
	- Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames.				
	- All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№	6		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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				
	Paint wooden doors + frames	Nº	5		
	Handles for doors (2)	Nº	12		
	Lock for door	Nº	6		
	<i>Rate or Lump Sum in Words:</i>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
954 الخريبة المتوسطة الرسمية المختلطة

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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	№	20		
	Replace glass	№	3		
	<i>Rate or Lump Sum in Words:</i>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				

Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.1.2.1	Rehabilitate and repair cracked and damaged plaster indoor and outdoor Work to include: - Determine the location and remove all loose items around the area - Remove the cracked plaster layer - Remove the pulled out layers - Clean the places with suitable materials - Fill all cracks after widening by (No Suggestions) or approved equal. - Remove loose and other deteriorated materials prior to the new repair. Take special care not to damage the adjacent original materials. Prepare mortar joints for installation of lateral reinforcement where it is required. Use thin steel bars to clean joints to maximum depth possible. Remove loose mortar. Mix mortar with minimal amount of water (potable) prior to use. All separation cracks between perpendicular walls shall be filled grout to reduce additional movement from wind loads and thermal expansion-contraction. - Clear debris from crack by probing, brushing, and blowing. - Force non-shrink mortar mixture into crack as deep as possible with hands, wood and metal probes. Use as dry a mix as possible. Use stone bats to fill larger crack voids. Ensure mortar is forced into smaller/deeper cracks. Mortar grout will be fluid in order to flow into crack. Either grout bags or gravity flow shall be used depending on the conditions. Fill Protect repairs from rapid drying by misting, shading, protecting from dry wind cracks in a series of applications rather than one large application. Final application shall not be flush with the surface, but shall be one half the width of the crack below the surface. Remove all tool marks with brush. - Apply the finish rough plaster layer - Install galvanized steel mesh 20 cm width at least - Apply the second smooth plaster layer Repair and maintenance of external plaster works around 5 windows Repair and maintenance of external plaster works on the wall <i>Rate or Lump Sum in Words:</i> 				
		Item	5		
		Item	1		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.2	<u>Tiling Works</u>				
9.2.7	<u>Clean and Rub the Existing Floor Tiles and Skirting</u> Rehabilitate any type of flooring tiles and skirting (ceramic - mosaic - etc.) Work to include: - All materials and labors - Grouting - Polish and rubbing - All needed items as per the Engineer instruction as specified				
9.2.7.3	Type 3: Mosaic <i>Rate or Lump Sum in Words:</i>	m ²	575		
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 1 layers of putty then after smoothening, then 2 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	1,475		
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
الخريبة المتوسطة الرسمية المختلطة 954

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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	17		
	<i>Rate or Lump Sum in Words:</i>				
12	<u>FURNISHINGS</u>				
12.1	INSTITUTIONAL FURNITURE				
	Supply and install the following institutional furniture complete including all necessary fixing and accessories, all as specified, shown on the drawings and to the satisfaction of the Engineer.				
	Projector & Screen	Nº	4		
12.1.3	Office Room Furniture				
	Provide a new paper printer	Nº	1		



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
954 الخريبة المتوسطة الرسمية المختلطة

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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		
	New Flushing system for the toilet seat	Item	2		
	Maintenance & repair work in toilets	LS	1		
	Supply and installation of a complete floor-mounted squat toilet set	Item	2		
	<u>Rate or Lump Sum in Words:</u>				
1.2.2	Maintenance and rehabilitation of existing HVAC & fire fighting systems, including all necessary piping, duct works, pumps and controls, fans, mechanical works inside shafts, air conditioning units, etc.				
	Provide new Sobya	Item	17		
	Supply and installation of a steel diesel fuel tank	Item	2		
	<u>Rate or Lump Sum in Words:</u>				
3	<u>WATER PIPE WORK INSTALLATION</u>				
3.1	<u>Water Tanks</u>				
	Supply & install polyethylene water tank (3 layers) or more with all necessary supply and over flow connections all as per the Engineer instructions				
3.1.2	2000 liters PE water tank	No	7		
	Replacement of water pipes and water pump for 3 water tanks				
	<u>Rate or Lump Sum in Words:</u>				



Lebanese Emergency Assistant Project (LEAP)
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954 الخريبة المتوسطة الرسمية المختلطة

Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
3.2	<u>Electrical Water Heater</u> Electrical water heater as specified and scheduled; include pipe work connections, temperature and pressure gauges, control and power wiring from the MCC, hot water and pipe work connections, control and high limit control valves, isolation and safety valves, thermal insulation, valve boxes, bonding and identification, and the heater should be of a good trade mark of European or west made or first class Lebanese product.				
3.2.2	EWB-02 (100 L) <i>Rate or Lump Sum in Words:</i>	No	1		
5	<u>SANITARY FIXTURES</u>				
5.4	<u>Lavatories for Non Kids</u> Supply and install semi pedestal wash basin similar to Ideal Standard No. 742001 or approved equal and fixed at 82 cm high from the floor finish. Cost to include all necessary connections, angle valves, traps and necessary accessories as specified.				
5.4.1	LAV-01 (semi-pedestal with mixers 55 x 45 cm) <i>Rate or Lump Sum in Words:</i>	No	2		
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	No	10		
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	No	7		



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Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	2		
1.1.3	Sockets and switches <i>Rate or Lump Sum in Words:</i>	Pcs	4		
1.1.8	Lightning protection (Air terminals, pits & down conductors) <i>Rate or Lump Sum in Words:</i>	LS	1		
8	<u>SOLAR SYSTEM</u>				
8.1	Supply, install, connect and test the solar lighting system for all Electrical Loads (excluding Lifts, Pumps and AC Units) in perfect operating conditions, including but not limited to: - Photovoltaic multi-crystalline solar panels as shown on the drawings. - Hybrid Inverter - All cables, wires, conduits and all necessary accessories - Aluminum PV mountings - The Contractor shall ensure complete solar system which should function as the main Power Supply - The Contractor should submit detailed shop drawings and materials for approval. - For all blocks of the schools - Lithium Batteries for (Off-Grid Solar Types) - All necessary elevated structures on roof and other areas which are needed to install the required solar panel as mentioned on drawings (Sheds, Parking, etc.) areas				
	Provide new batteries for Solar Panels	Pcs	4		
	Provide new solar panels	Pcs	8		
	<i>Rate or Lump Sum in Words:</i>				



Collection

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Amount (US \$)

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Total Carried to General Summary

General Summary

Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
954 الخريبة المتوسطة الرسمية المختلطة

Bill of Quantities
General Summary

General Summary

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Amount (US \$)

Bill № 2: Civil and Architectural Works

Bill № 3: Mechanical Engineering Services

Bill № 4: Electrical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

964

متوسطة معربون الرسمية



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Bill № 2: Civil and Architectural Works



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
متوسطة معربون الرسمية 964

Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. Rate or Lump Sum in Words:	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Repair & paint metal door	Nº	5		
	Generator lock.	Nº	1		
	Metal door handles	Nº	6		
	Metal door lock	Nº	2		
	Rate or Lump Sum in Words:				
					



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5.2.2	Rehabilitate existing steel gates Repair & paint school's entrance gate	№	1		
	<i>Rate or Lump Sum in Words:</i>				
5.2.6	Rehabilitate and paint existing steel window Glass for windows	№	1		
	<i>Rate or Lump Sum in Words:</i>				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u> 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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame	№	4		
	<i>Rate or Lump Sum in Words:</i>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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				



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

Handles for doors (2)	Nº	24
Door Lock	Nº	12
Paint wooden door	Nº	7

Rate or Lump Sum in Words:

9 **FINISHES**

9.5 **Painting**

9.5.1 **Wall and Ceilings Paint Works**

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

The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.

Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials.



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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	1,329		



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Bill № 3: Mechanical Engineering Services



Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Emptying of sanitary pit/septic tank	LS	1		
	Maintenance of water filters	LS	1		
	Repair & maintenance of plumbing & sanitary work	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
2	<u>SANITARY, WASTE & RAIN WATER PIPE WORK INSTALLATION</u>				
2.4	<u>Channel Drain</u>				
	Supply and install channel from Ground floor drain (channel drain) made of ductile iron. The bearing capacity of the grating should be more than 10 ton and work to include back water valve and should be painted as per the Engineer instructions and should be anti rust paint, including excavation, concrete thickness not less than 20 cm & reinforcement steel and necessary floor concrete cleaning. All works should be as per specifications and as per the Engineer instructions.				
2.4.2	Wide 300 mm (Heavy Duty)				
	The playground drainage outlet/channel needs to be opened because it is causing water leakage	Item	1		
	<i>Rate or Lump Sum in Words:</i>				



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u> 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 <i>Rate or Lump Sum in Words:</i>	No	9		
					



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Amount (US \$)

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Bill № 4: Electrical Engineering Services



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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.3	Sockets and switches <i>Rate or Lump Sum in Words:</i>	Pcs	4		
8	<u>SOLAR SYSTEM</u>				
8.1	Supply, install, connect and test the solar lighting system for all Electrical Loads (excluding Lifts, Pumps and AC Units) in perfect operating conditions, including but not - Photovoltaic multi-crystalline solar panels as shown on the drawings. - Hybrid Inverter - All cables, wires, conduits and all necessary accessories - Aluminum PV mountings - The Contractor shall ensure complete solar system which should function as the main Power Supply - The Contractor should submit detailed shop drawings and materials for approval. - For all blocks of the schools - Lithium Batteries for (Off-Grid Solar Types) - All necessary elevated structures on roof and other areas which are needed to install the required solar panel as mentioned on drawings (Sheds, Parking, etc.) areas Provide batteries for solar panels	Pcs	4		
	<i>Rate or Lump Sum in Words:</i>				



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General Summary

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* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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SCHOOL NO.

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متوسطة سليم حيدر الرسمية



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Bill № 2: Civil and Architectural Works

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1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. Rate or Lump Sum in Words:	LS	1		
2	<u>SITE PREPARATION AND DEMOLITION</u>				
2.4	<u>School Fences with Related Gates</u>				
2.4.2	<u>Rehabilitate Existing Fence (Strengthening & Rehabilitation)</u> Work to include - Rehabilitate and support all the existing fence as per - Determine the places that requires support - Preparation of shop drawings - Replace all broken elements - Redo all damaged elements and to be similar to existing elements - Finishing works as existing (plastering, paints, stone cladding, etc.) - Rehabilitate existing steel protection (Replace all damaged part by new similar to existing and paint with epoxy as specified) - Replace existing chain link by new one (Galvanized) - 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 Rate or Lump Sum in Words:	m	25		

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
2.9	<u>Rehabilitation of Playground Slabs (External Playground)</u>				
2.9.1	Clean the rehabilitated places by removing all debris and make good all the edges and remove all broken slabs & failed slabs and remove to outside the site all the debris & refused items, cast proper concrete in places where the removal of all debris took place (No patching is allowed for the existing concrete surfaces) Work to include: - Removal and cleaning the location - Materials, fill - Labors - Make good the surfaces - Lining and marking all playgrounds as per site instructions - All needed refurbishing works as per the Engineer				
	Repair Playground flooring	m ²	250		
	<i>Rate or Lump Sum in Words:</i>				
4	<u>MASONRY</u>				
4.2	<u>Rehabilitate and Clean masonry walls showing deep crack</u>				
4.2.1	<u>Rehabilitate Natural Stone Facades</u> Rehabilitate works on natural stone facades work should be by replacing the damaged stone and not filling with mortar. Work to include: - Determine location of damaged stone walls and location of dampness. Broken or damaged pieces to be replaced, then cleaning & leveling; without affecting the adjacent undamaged areas - Treat the dampness and the causes - Repair the stone by renewing the damaged and replace it with new ones with same stone and apply one layer of water proofing transparent paint - Clear the place and infill in between the coarse (Lining) - All works as instructed by the Engineer				
	Door threshold tiles	Pcs	3		
	<i>Rate or Lump Sum in Words:</i>				

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Bill of Quantities
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u>				
	Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction				
	Work to include:				
	- Remove all damaged members and replace by new ones				
	- Rub completely to secure all parts and use putty to make faces smooth				
	- Apply two layers of anti rust paint				
	- Apply putty				
	- Apply three layers of epoxy external paint				
	- All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors				
	Paint metal door	Nº	2		
	Handle for metal door	Nº	2		
	Lock for metal door	Nº	1		
	Glass for door	Nº	3		
	<i>Rate or Lump Sum in Words:</i>				
					
					

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.3	<u>Rehabilitate the Existing Timber Doors</u>				
	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				
	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 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				
	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				
	Paint wooden door	Nº	23		
	Repair wooden doors	Nº	12		
	New Door's Lock	Nº	4		
	Glass for Door	Nº	1		
	Handles for doors	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
					
					

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

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.4	<u>Gypsum Works</u>				
9.4.2	<u>Rehabilitate Existing Gypsum Suspended Ceiling (Tiles, Panels)</u>				
9.4.2.1	Rehabilitate existing gypsum board suspended ceiling and wall. Works to include material, labor, equipment, etc. and to the engineer's approval				
	Repair and maintenance of gypsum wall.	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				
	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				
	The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat.				
	Apply 1 layers of putty then after smoothening, then 2 layers of the approved paint materials.				
	All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval,				
	All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	2,960		
	<i>Rate or Lump Sum in Words:</i>				

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	№	13		
	<i>Rate or Lump Sum in Words:</i>				
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: - Materials and labors - Colors and shape to be as per engineer instruction - Dimension: 20cm x 10cm	№	1		
	Repair or Change School signboard	№	1		
	<i>Rate or Lump Sum in Words:</i>				
10.5	<u>Internal Curtains</u>				
	Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening	Pcs	35		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 3: Mechanical Engineering Services



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Bill of Quantities
Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>SANITARY FIXTURES</u>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u> 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 <i>Rate or Lump Sum in Words:</i>	No	8		
					



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متوسطة عرسال الرسمية الثانية



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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <u>Rate or Lump Sum in Words:</u> 	LS	1		
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
	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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <u>Rate or Lump Sum in Words:</u> 	Nº	1		



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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				
	Door Handles	Nº	24		
	Door Lock	Nº	1		
	Paint wooden doors	Nº	19		
	Repair Frame of wooden door	Nº	2		
	Glass for wooden door	Nº	1		
	<u>Rate or Lump Sum in Words:</u>				



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Bill of Quantities
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Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.2	<u>Aluminum Doors and Windows</u>				
8.2.2	<u>New Aluminum Internal Door</u> Supply and install aluminum door with frame and related strengthening stud, Works to include: Materials, and accessories - Labors - All needed items as per the engineer instructions. - Repair all around the opening				
8.2.2.1	Provide new aluminum partition door as indicated. <i>Rate or Lump Sum in Words:</i>	Nº	4		
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u> 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 Replace Window Glass <i>Rate or Lump Sum in Words:</i>	Nº Nº	22 6		
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				



Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	2,515		
10	<u>SPECIALTIES</u>				
10.2	<u>Classroom Specialties</u>				
10.2.1	<u>White Teaching Boards</u>				
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 <i>Rate or Lump Sum in Words:</i>	Nº	19		



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.5	<u>Internal Curtains</u> Supply and install internal rolling type tissue and polyester collapsible type curtain as per specifications and at the location as shown on drawings Works to include: - Materials - Labors - Heavy Duty Accessories - All needed works as per the Engineer instructions and approval				
10.5.1	On External Opening <i>Rate or Lump Sum in Words:</i> 	Pcs	34		



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Bill № 3: Mechanical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

متوسطة عرسال الرسمية الثانية 1423

Bill of Quantities

Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Flush tank lid (cistern cover)	Item	2		
	<i>Rate or Lump Sum in Words:</i>				
5	<u>SANITARY FIXTURES</u>				
5.6	<u>Self Close Taps on Kids & Students Lavatories</u>				
	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	Nº	4		
	Handheld bidet sprayer	Nº	3		
	<i>Rate or Lump Sum in Words:</i>				
5.7	<u>Wall Type Self Close Taps on Drinking Basins</u>				
	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	Nº	12		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Rehabilitation of Shelters

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Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.2	Wires and cables : "Cache -Cables"	Pcs	22		
					
					
1.1.9	All needed electrical works ... etc.				
	Repair & maintenance of electrical work	LS	1		
	<i>Rate or Lump Sum in Words:</i>				
					
					



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i> 	LS	1		
5	<u>METAL WORKS</u>				
5.2	<u>Rehabilitate and Maintain the Existing Steel Work (Burglar Proof Protection + Opening)</u> Rehabilitate the existing steel windows or doors as per specifications and drawings and the Engineer instruction Work to include: - Remove all damaged members and replace by new ones - Rub completely to secure all parts and use putty to make faces smooth - Apply two layers of anti rust paint - Apply putty - Apply three layers of epoxy external paint - All needed items as per the Engineer instructions				
5.2.1	Rehabilitate existing steel doors + Paint <i>Rate or Lump Sum in Words:</i> 	Nº	5		



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
7	<u>THERMAL AND MOISTURE PROTECTION</u>				
7.1	<u>Roof Waterproofing</u>				
7.1.1	Works should be applied and done by experts with previous experience in similar works. Works to include: - DEEP cleaning of all surfaces and carting away of dust & debris - Concrete pad for water tanks as indicated - Sand cement screed layer to Provide proper slopes minimum 0.75% - Expansion joint sealant to be done respecting back rod, un-bonding tape, adequate thickness of sealant, type & finish of sealant (fire rated) & design drawings especially on roof & planters. - Provide tackle coat (Proper) - Provide 4mm thick, SBS layer from an approved manufacturer - Provide protection for all pipe works and drains - Provide heat insulation layers of 35 KG/m³ where required - Provide Geotextile layers - Provide all aluminum flashing with mastic - Provide finishing material as required - All as specified and approved shop drawings <i>Rate or Lump Sum in Words:</i>	LS	1		
7.3	<u>Insulate the New and Old Basements Walls</u>				
7.3.1	Provide the necessary damp proof coarse protection for the underground walls (Basements, etc.) work to include the following: - Applying one Bituminous layer of tack coat directly over concrete surface without any intermediate layer like plaster or similar. - Applying one layer of SBS sheet 4mm thick with cantonal protection - Construct 10cm hollow concrete block work wall - The cost of labor - In addition to above works to include also required excavation and backfilling with proper materials - All needed works for a proper insulation as per instructions <i>Rate or Lump Sum in Words:</i>	LS	1		



Lebanese Emergency Assistant Project (LEAP)
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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u> Supply and install all timber work with all related items The joinery works should be of the first class type and as per specifications and drawings Work to include: - Material and labors - All accessories to be heavy duty (Hinged, Lock, Glass vision, as required, etc.) - The frame for any width (Steel, Wood, etc.) - Paint as follows: - Anti rust layers - Putty + one layer of undercoat - Three layers of epoxy paint - Apply and fix 6mm wired clear glass - View Permitting glass opening where needed - remove the existing timber panels - repair the edges - The Contractor should submit shop drawings - All needed items as the Engineer instructions				
8.1.1	<u>Timber Doors</u> 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 - Works included, all accessories and fittings, pre-painting and finishing paint sides of doors and box frames. - All works should be done as per the Engineer instructions				
8.1.1.2	Provide new single leaf wooden door with view frame <i>Rate or Lump Sum in Words:</i>	№	24		
9	<u>FINISHES</u>				
9.5	<u>Painting</u>				
9.5.1	<u>Wall and Ceilings Paint Works</u>				



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
	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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings	m ²	2,552		
	<i>Rate or Lump Sum in Words:</i>				
10	<u>SPECIALTIES</u>				
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	4		
	<i>Rate or Lump Sum in Words:</i>				



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Bill № 4: Electrical Engineering Services



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Bill of Quantities
Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
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1 **BASIC ELECTRICAL REQUIREMENTS**

1.1 **Fixing and Repairing**

Check & 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.

All as per the drawings, specifications and Engineer instructions

1.1.9	All needed electrical works ... etc. Electrical maintenance to address existing electrical faults <i>Rate or Lump Sum in Words:</i>	LS	1		
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Lebanese Emergency Assistant Project (LEAP)
Rehabilitation of Shelters
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مدرسة عرسال الرسمية السادسة



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Rehabilitation of Shelters

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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>SITE PREPARATION AND DEMOLITION</u>				
1.1	<u>Demolishing and Removal of Debris</u>				
1.1.1	The works include all types of demolition and the removal of debris and damaged elements such but not limited to, the following: - Existing plastering and concrete items such as foundations, columns, slabs, etc. - Damaged Tiling (floors and walls) - Toilet fixtures and pipes installation of all sizes - Counter tops, bases and sinks - Water tanks of different types - Hollow concrete block walls or concrete walls of all sizes - Demolition of the existing ramps / Stairs and the execution of the given plans and specifications - Including the necessary equipment for the removal of debris and all resulting materials - etc. <i>Rate or Lump Sum in Words:</i> 	LS	1		



Lebanese Emergency Assistant Project (LEAP)

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
5	<u>METAL WORKS</u>				
5.3	<u>Rehabilitate Existing Steel Shed Works</u>				
	Rehabilitate the existing steel elements of the existing shed and the work to include:				
	- Remove existing cover (Asbestos, TOT, etc.) and to be dismantled and carted away to outside the site.				
	- Brick tiles to be disassembled and removed and stored in appropriate location as per engineer's instruction and to checked for reused if needed				
	- Clean, rub and repaint all steel structure and do the necessary reinforcement				
	- Damaged steel structure to be replaced with new steel structure similar to existing.				
	- Support and add new beams similar to existing.				
	- Remove existing paint & clean deeply as per SSPC code and ISO 8501				
	- Apply base and epoxy as specified				
	- Supply the roof covers as per drawings				
	- Install the galvanized steel gutter (No Welded) and all Steel pipe works				
	- Corrugated Metal sheet flashing between walls and shed roof with mastic				
	- All needed items as per the Engineer instructions				
8	<u>DOOR AND WINDOWS</u>				
8.1	<u>Wooden Doors and Windows</u>				
8.1.1	<u>Timber Doors</u>				
8.1.1.5	Provide new toilet doors with related accessories as per specifications	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
					
					



Lebanese Emergency Assistant Project (LEAP)

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Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
8.1.3	<u>Rehabilitate the Existing Timber Doors</u> 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 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 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 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 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.				



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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				
	Paint door + frame	Nº	28		
	Repair wooden door and frame	Nº	10		
	Glass for door	Nº	1		
	Door Handles	Nº	2		
	Door Lock	Nº	1		
	<i>Rate or Lump Sum in Words:</i>				
8.2	<u>Aluminum Doors and Windows</u>				
8.2.3	<u>Rehabilitation Existing Glazed Aluminum Panels (s)</u>				
	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	1		
	Replace Window Glass	Nº	3		
	Replace Door Handles	Nº	2		
	<i>Rate or Lump Sum in Words:</i>				
8.2.4	<u>Colored Powder Coated Aluminum Louver</u>				
9	<u>FINISHES</u>				
9.1	<u>Cement Plaster</u>				
9.1.2	<u>Repair of Existing Plaster (Internal - External) (Cracks, etc.)</u>				



Lebanese Emergency Assistant Project (LEAP)

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Bill № 2: Civil and Architectural Works

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



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Bill of Quantities
Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.2	<u>Tiling Works</u>				
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	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. <i>Rate or Lump Sum in Words:</i>	Pcs	4		
9.2.7	<u>Clean and Rub the Existing Floor Tiles and Skirting</u> Rehabilitate any type of flooring tiles and skirting (ceramic - mosaic - etc.) Work to include: - All materials and labors - Grouting - Polish and rubbing - All needed items as per the Engineer instruction as specified				
9.2.7.3	Type 3: Mosaic <i>Rate or Lump Sum in Words:</i>	m ²	15		
9.5	<u>Painting</u>				



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
9.5.1	<u>Wall and Ceilings Paint Works</u> 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 The base surfaces should be clean and smooth and free from any pulled out old paints before starting application of the specified primer/undercoat. Apply 2 layers of putty then after smoothening, then 3 layers of the approved paint materials. All works and items should be as per manufacturer recommendation, compatible with each other and as per the Engineer instructions and approval, All paint types must be lead-free and Low VOC (Volatile Organic Compounds)				
9.5.1.2	Super Rubber Paint for old walls and ceilings <i>Rate or Lump Sum in Words:</i>	m ²	4,901		
10	<u>SPECIALTIES</u>				
10.1	<u>Bathrooms Accessories</u> - 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				
10.1.4	<u>Mirror for Lavatories</u> 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) <i>Rate or Lump Sum in Words:</i>	No	1		



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Bill of Quantities

Bill № 2: Civil and Architectural Works

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
10.2	Classroom Specialties				
10.2.1	<u>White Teaching Boards</u>				
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	№	6		
	<i>Rate or Lump Sum in Words:</i>				
					
					



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Bill № 3: Mechanical Engineering Services



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Bill № 3: Mechanical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>GENERAL TECHNICAL REQUIREMENTS</u>				
1.2	<u>Rehabilitation Works General Requirements</u>				
	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.				
	Floor drain cover	Item	1		
	<i>Rate or Lump Sum in Words:</i>				
					
					



Collection

Page №

Amount (US \$)

3.1

Total Carried to General Summary

Bill № 4: Electrical Engineering Services



Lebanese Emergency Assistant Project (LEAP)

Rehabilitation of Shelters

مدرسة عرسال الرسمية السادسة 1638

Bill of Quantities

Bill № 4: Electrical Engineering Services

Item	Description	Unit	Estimated Quantity	Unit Rate (US \$)	Amount (US \$)
1	<u>BASIC ELECTRICAL REQUIREMENTS</u>				
1.1	<u>Fixing and Repairing</u>				
	Check & 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. All as per the drawings, specifications and Engineer instructions				
1.1.1	Lighting fixtures: New lamps <i>Rate or Lump Sum in Words:</i>	Pcs	40		



Collection

Page №

Amount (US \$)

4.1
.....

Total Carried to General Summary
.....
.....

General Summary



General Summary

Description

Amount (US \$)

Bill № 2: Civil and Architectural Works

Bill № 3: Mechanical Engineering Services

Bill № 4: Electrical Engineering Services

* Total Amount of Bill of Quantities

* Discount by Tenderer (_____ %)

* Total Amount of Tender (VAT Not Applicable)

* Total Amount of Tender in Words:

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