

UCEP BANGLADESH

Bill of Quantities (BOQ) for Repair, Maintenance & Renovation Works of Tin-Shed Building

UCEP Tongi Pourashava Kalabagan Technical School

Nishatnagar, Masimpur, Kalabagan, Tongi, Gazipur.

Building Type: Tin shed semi-pacca building, Foundation Type: Brick Foundation, Approx. Floor Area: 850 Sft

Bill of Quantities (BOQ), Construction Cost

Name of Work: Repair and Maintenance Works of Tin-Shed Semi-pacca Building.

Item No.	Description of Items	Quantity	Unit	Unit Rate (Tk.)	Amount (Tk.)
1	Mobilization and cleaning site before commencing actual physical work and during contract period and demobilization after completion of the works under contract to be accepted by the Engineer-in-charge. This work shall also cover cleaning and clearing, cutting or filling, dressing the project area on and in the ground to an extent that all the events of works of the project can be executed smoothly in a working environment with a particular attention on safety and security in all respects, and to stockpile the end outcome to a place for disposal agreed by the Engineer-in-charge, where, payments are to be based on ground area determined by the Engineer-in-charge and be proportionate to the percentage progress of work under contract as a whole in all respects and approved by the Engineer-in-charge.	1,335.00	sft		
2	Layout and marking for earthwork in excavation in foundation accepted by the Engineer-in-charge. [Plinth area of the structure shall be considered for measurement]	570.00	sft		
3	Earth work in excavation in all kinds of soil for foundation trenches up to 1.5 m depth and maximum 10 m lead including layout, providing center lines, local bench-mark pillars, levelling, ramming and preparing the base, fixing bamboo spikes and marking layout with chalk powder, providing necessary tools and plants, protecting and maintaining the trench dry etc., stacking, cleaning the excavated earth at a safe distance out of the area enclosed by the layout etc. all complete and accepted by the Engineer-in-charge, subject to submit method statement of carrying out excavation work to the Engineer-in-charge for approval. However, engineer's approval shall not relieve the contractor of his responsibilities and obligations under the contract.	2,170.00	cft		
4	Shore protection work during excavation in foundation trenches up to 1.5 m depth to protect loss due to damage of property by palisading accepted by the Engineer-in-charge. [The rate is including the cost of vertical post]	800.00	sft		
5	Sand filling in foundation trenches and plinth with sand having min. F.M. 1.2 in 150 mm in layers including levelling, watering and compaction to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) by ramming each layer up to finished level as per design supplied by the design office only, all complete and accepted by the Engineer-in-charge.	1,830.00	cft		

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Item No.	Description of Items	Quantity	Unit	Unit Rate (Tk.)	Amount (Tk.)
6	50 mm down graded picked jhama khoa consolidation in foundation trenches by mixing the same with best quality local sand (F.M. 1.2) in (2:1) (khoa: sand) proportion to achieve minimum dry density of 95% with optimum moisture content (Modified proctor test) including breaking and screening chips, laying and spreading in 150 mm layers uniformly and compacting etc. all complete and accepted by the Engineer-in-charge.	570.00	cft		
7	One layer brick flat soling in foundation or in floor with first class/picked jhama bricks (BDS 208) including preparation of bed and filling the interstices with local sand, leveling etc. complete and accepted by the Engineer-in-charge.	684.00	sft		
8	Lean / blinding concrete (1:3:6) in foundation or in floor with cement, sand (F.M. 1.2) and picked jhama brick chips including breaking of chips, screening, mixing, laying, compacting to required level and curing for at least 7 days including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M)	820.00	cft		
9	75 mm thick damp proof course (1:1.5:3) with cement, Sylhet sand (F.M. 2.2), stone chips and water-proofing admixture/agent including breaking of chips, screening, centering, shuttering, casting, curing and finishing with a coat of bitumen including the supply of water, electricity, costs of tools & plants and other charges etc. all complete and accepted by Engineer-in-charge. (Cement: CEM-II/B-M)	45.00	sft		
10	Brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) in foundation, plinth & Superstructure, filling the joints/interstices fully with mortar, racking out the joints, cleaning and soaking the bricks at least for 24 hours before use and curing at least for 7 days etc. all complete including cost of water, electricity and other charges and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M)	570.00	cft		
11	125 mm brick works with first class bricks with cement sand (F.M. 1.2) mortar (1:4) and making bond with connected walls including necessary scaffolding, raking out joints, cleaning and soaking the bricks for at least 24 hours before use and washing of sand, curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) In ground floor	2,165.00	sft		
12	38 mm thick artificial patent stone (1:2:4) flooring with cement, best quality coarse sand (50% quantity of Sylhet sand or coarse sand of equivalent F.M. 2.2 and 50% best quality local sand of FM 1.2) and 12 mm down well graded brick chips including breaking chips, screening, laying the concrete in alternate panels, compacting and finishing the top with neat cement and curing at least for 7 days in all floors including cost of water, electricity and other charges etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) In ground floor	390.00	sft		
13	Supplying, fitting and fixing country made GP (Gross Porcellanto) - glazed or unglazed homogeneous floor tiles complying BDS ISO 13006: 2015, water absorption \leq 0.5%, modulus of rupture (MOR) \geq 27 N/mm ² , irrespective of color &/or design, with 20 mm thick cement sand (F.M. 1.2) mortar (1:4) base and raking out the joints with white cement including cutting and laying the tiles in proper way and finishing with care etc. all complete and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M). In ground floor (GP-homogeneous) 300 mm x 300 mm floor tiles)	150.00	sft		


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14	Reinforced cement concrete works with minimum cement content relates to mix ratio 1:2:4 having maximum water cement ratio = 0.40 and minimum $f_{cr} = 30.5$ MPa, satisfying a specified compressive strength $f_c = 22$ MPa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM, cement conforming to BDS EN-197-1-CEM-I, 52.5N (52.5 MPa) / ASTM-C 150 Type - I, best quality Sylhet sand or coarse sand of equivalent F.M. 2.2 and 20 mm down well graded stone chips conforming to ASTM C-33 (Aggregate grading as per table shown in technical specification), conducting necessary tests, making and placing shutter in position maintaining true to plumb, making shutter water-tight properly, placing reinforcement in position; mixing in standard mixer machine with hopper fed by standard measuring boxes, casting in forms, compacting by vibrator machine and curing at least for 28 days, removing centering-shuttering after specified time approved; including cost of water, electricity, other charges etc. all complete, approved and accepted by the Engineer-in-charge. (Rate is excluding laboratory test fees, the cost of reinforcement and its fabrication, placing, binding etc. and the cost of shuttering & centering)				
15	Grade beam, lintel, Sunshade and other structural component etc.	160.00	cft		
16	FORMWORK (Wooden): Centering and shuttering, including strutting, propping etc. The formwork must be rigid enough both in and out of plane, to make the concrete surface true to the designed shape and size by using necessary etc. and removal of form for: Grade beam, lintel, Sunshade and other structural component etc.	363.00	sft		
17	Supplying, fabrication and fixing to detail as per design : Grade 400 (B400DWR / B420DWR: complying BDS ISO 6935-2:2016 / ASTM A615) ribbed or deformed bar produced and marked including straightening and cleaning rust, if any, bending and binding in position with supply of G.I. wires, conducting necessary laboratory tests etc. (excluding splices or laps) complete in all respect and accepted by the Engineer-in-charge (Measurement shall be recorded only on standard mass per unit length of bars, while dia of bars exceeds its standard) according to Bangladesh standard, with minimum yield strength, f_y (ReH) = 400 MPa but f_y not exceeding 480 MPa and whatever is the actual yield strength within allowable limit as per BNBC/ ACI 318, the ratio of ultimate tensile strength f_u to yield strength f_y , shall be at least 1.25 and minimum elongation after fracture and minimum total elongation at maximum force is 17% and 8% respectively : up to ground floor. ribbed or deformed bar reinforcement (excluding laboratory test fees) for Reinforced concrete, produced and marked in accordance with BDS ISO 6935-2:2016 (or standard subsequently released from BSTI)	500.00	kg		
18	Providing bearing joints fixed or free with 250 mm x 375 mm x 10 mm M.S. (Grade - A36) plate fitted in the truss angles with 16 mm diameter M.S. rod counter sunk rivets, welded and anchored to 250 x 375 x 10 mm. M.S. plate by two Nos. 19 mm dia M.S. "U" rod embedded in the bed of the lintel around the reinforcement, cleaning and greasing the joints for all floors etc. all complete and accepted by the Engineer-in-charge	8.00	each		


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Item No.	Description of Items	Quantity	Unit	Unit Rate (Tk.)	Amount (Tk.)
19	Minimum 12 mm thick cement sand (F.M. 1.2) plaster (1:4) with fresh cement to both inner-and outer surface of wall, finishing the corner and edges including washing of sand, cleaning the surface, curing at least for 7 days, cost of water, electricity, scaffolding and other charges etc. all complete in all respect as per drawing and accepted by the Engineer-in-charge. (Cement: CEM-II/B-M) ground floor.	4,512.00	sft		
20	Exterior standard acrylic emulsion paint of approved best quality and color having water resisting properties and resistance properties against fungi, fading & flaking delivered from authorized local agent of the manufacturer in a sealed container; applying to exterior surface with surface preparation including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying necessary exterior sealer of specified brand on prepared surface; then applying necessary exterior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of exterior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	1,155.00	sft		
21	Interior standard acrylic emulsion paint (plastic or matt finish) of approved best quality and colour delivered from authorized local agent of the manufacturer in a sealed container; applying to interior wall and ceiling with surface preparation including cleaning drying, making free from dirt, grease, wax, removing all chalked and scaled materials, fungus, mending good the surface defects using sand paper and necessary scaffolding; applying necessary interior sealer of specified brand on prepared surface; then applying necessary interior putty of specified brand for levelling, spot filling, crack filling and cutting by sand paper/zero water paper; finally applying 2 coats of interior emulsion paint spreading by brush/roller/spray & necessary scaffolding etc. upto desired finishing, elapsing specified time for drying or recoating; all complete in all floors and accepted by the Engineer-in-charge.	3,115.00	sft		
22	Premium synthetic enamel paint of approved best quality and colour delivered from authorized local agent of the manufacturer in a sealed container, having high water resistance, high bondability, flexibility property; using specified brand thinner applying to metallic or wooden surface by brass/roller/spray in two coats over single coat anti-corrosive coating including cleaning, drying, making free from dirt, grease, wax, removing all chalked and scaled materials, all complete in all floors and accepted by the Engineer-in-charge.	180.00	sft		
23	Taking out of old MS window shutter/grill or door/window frame and refitting and refixing after minor repair (excluding the cost of wood and M.S. clamp)	12.00	each		
24	Labour for taking out C.I. sheet roofing	1,690.00	sft		
25	Dismantling of unserviceable/damaged brick works (with cement or lime mortar) of any thickness in foundation and superstructure and removal of debris to a safe distance.	595.00	cft		
26	Dismantling of unserviceable/damaged brick works (with cement or lime mortar) of thickness 75/125 mm in foundation and superstructure and removal of debris to a safe distance.	1,965.00	sft		
27	Dismantling of R.C.C. beam, lintel, column, drop wall, sun shade from any height and removal of debris to a safe distance.	325.00	cft		

Item No.	Description of Items	Quantity	Unit	Unit Rate (Tk.)	Amount (Tk.)
28	Picking-up of unserviceable tiles including bonding mortar from floor, walls and dado etc. and removal of debris to a safe distance.	150.00	sft		
29	Taking out of Pvc/Gypsum board ceiling & Replacing/Renewing Pvc/Gypsum board ceiling etc. (excluding cost of Pvc/Gypsum Board Ceiling). All completed as per direction of Engineer-in-charge.	1,235.00	sft		
30	Labour for C.I. Sheet roofing including supply of limpet, washer, screws, putty etc. All completed as per direction of Engineer-in-charge.	1,690.00	sft		
31	Labour for taking out of Roof truss, Refitting & Refixing of roof truss with all necessary components etc. All completed as per direction of Engineer-in-charge.	5.00	each		
32	Relocating, refitting and refixing of existing any type old hand wash Basin with the newly supplied fitting fixing accessories including cleaning and forming the materials to make reusable, in limited scope of works to utilise full capacity of manpower/ tools / equipment etc. all complete as per direction and acceptance by the Engineer- in-charge.	1.00	each		
33	Renovation of all Sanitary & Water Supply work including change of pipes, fittings, fixtures and any other necessary works (as need base), all complete as per direction and acceptance by the Engineer-in-charge.	-	LS		
34	Remove and reinstall electrical Work like wiring, switches, sockets, lights, fans, and other necessary electrical accessories etc. (As per Site need base). all complete as per direction and acceptance by the Engineer- in-charge.	-	LS		
35	Miscellaneous work; materials test, any type of work, materials, labour and accessories if necessary during construction. (Site need base)	-	LS		
Total Amount including VAT & AIT as per Govt. Rules(Tk.)					
<p>*NOTE : 1. Contractors should not be quoted for items No.33 to No.35. 2. Contractors are requested to provide rate quotes for each item inclusive of VAT and AIT as per Govt. rules 3. Items quantity and number of items subject to change based on physical site conditions (as per site need base). 4. The contractor shall perform all standard conventional material tests as directed by the engineer in charge. 5. Contractor bill will be paid as per physical field measurement by MB entry.</p>					

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