

Block 3

SECTION 1

EXCAVATION ,BACKFILLING & SITE WORKS

NUMBER OF BILLS "1"

Bill No. 1

**SECTION '1'
EXCAVATION ,BACKFILLING AND SITE WORKS**

NUMBER OF BILLS"1"

Preambles

1. Excavation for foundation, trenches. Etc. shall be the actual dimensions shown on Drawings, and to be measured from Natural Ground Level (N.G.L) or Reduced Level (R.L) (which is lower), i.e.

1. From Reduced level when R. L. is lower than N. G. L.

2. From N. G. L. when N. G. L. is lower than the Reduced Level.

2. Allowance for working space is not applicable, unless it is clearly specified in the Special Conditions.

3. Excavation for foundation of retaining walls is to be measured from Lower Reduced level, or from lower Natural Ground level (as stated in Item 1 above).

4. Price to include removal of site obstacles, rocks, trees...etc. and removal of all debris from site. Including any necessary rerouting of infrastructure works, such as piping, conduits, etc. Price also to include maintaining all trees that are not obstructing the buildings, boundary walls, courts and roads.

5. Each layer of back filling shall be tested separately, on the contractor's expense, prior to applying the next layer.

6. Co-ordination with all local authorities to facilitate the works, removal of obstacles or for diversion of roads, services, etc. is the contractor's responsibility and are deemed to be included in his rates.

7. Excavated soil shall be classified and retained, to back fill with suitable fill material and to place agricultural soil as where needed as shown in the drawings and as instructed by the Engineer. The extra and unsuitable soil shall be removed, on the contractor's expense with no extra cost.

8. Prior to commencement of site leveling or any excavation, the Contractor shall obtain Engineer's written approval on the contour grid of 5m x 5m map, checked jointly by the contractor and the Engineer, the excavation profiles and sections showing all levels and dimensions, and the calculations of excavation quantities.

9. Excavation shall be in Cubic Volume, the net measurements of the excavated elements as shown in the drawings, no allowance shall be made for increase in bulk after excavation.

10. Rate of Excavation shall include: -

- Excavation to any depth, in any shape, in any type of soil, below water table level and keeping excavation free of water (if any)

- Leveling, ramming, trimming and grading excavation bottoms.

- Planking and strutting.

- Cost of lab. Tests of works and materials.

11. Contractor should study site investigation report and he should visit the site.

Excavation & backfilling is directly related to site investigation report

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (01/1)

EXCAVATION AND BACK FILLING (SEC - 01)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 1 ') Excavation, Back filling and Site Works.				
1.1	Site Leveling. (Excavation under all the building). Cut in any kind of soil, rock, concrete, or asphalt; to the required Levels (reduced Level bottom of base coarse under ground slab). The price to include back filling with excavated suitable materials, removal of extra soil, debris, and organic materials to a suitable place approved by the Authority. Back filling material shall be applied on layers, 20 cm thick, watered and compacted to min 95% to comply with modified AASHTO Density Test (T-80)	M.C	1500		
1.2	Excavation for Foundation of Block, Reinforced and boundary walls , from reduced level to bottom of blinding under footings and where required as per drawings, in any kind of soil to the dimensions and levels shown in the drawings. The price to include back filling with excavated suitable materials, or imported approved materials up to bottom of base coarse, removal of extra and unsuitable soil. Back filling material shall be applied on layers, 20 cm thick, watered and compacted to 100% to comply with modified AASHTO F.D.T (T-80)	M.C	700		
1.3	Supply and Well Compact Base Coarse, average 20 cm thick under slab on grade and 1 m under the building foundation area plus 50 cm offset all around according to drawings and where directed by the engineer. basecoarse shall be applied on layers, 20 cm thick, watered and compacted to 100% to comply with modified AASHTO F.D.T (T-80).Price includes watering, leveling and compacting of ground (sub-base) under base coarse to min 100% according to Field Density Test.	M.C	170		
1.4	(Provisional Item) Import and fill with selected Imported Approved Fill; to the required levels and where directed by the Engineer, only for the quantities that are extra and above the quantities included in item 1.1 Filling shall be on layers not to exceed 200 mm. thick. Price to include leveling, watering and compacting to 100 % field density. Complying with Modified AASHTO Density Test T-80.	M.C	500		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (01/1)

EXCAVATION AND BACK FILLING (SEC - 01)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 1 ') Excavation, Back filling and Site Works				
	FORWARDED TOTAL				
1.5	Provisional : Supply and spread 20 cm thick base coarse after compaction. Price to include leveling, watering and compacting to 95 % field density. Complying with Modified AASHTO Density Test T-80.	M.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**SECTION 2
SKELETON WORKS
NUMBER OF BILLS "3"**

Concrete works Bill No. 2
Masonry Works Bill No. 3
Stone Works Bill No. 4

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

SKELETON WORKS - CONCRETE WORKS (SEC- 02)

Bill No 2

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. CONCRETE WORKS.				
	<p>Preambles</p> <p>Rates of Concrete Works shall include: -</p> <p>1. All form works and shuttering in any form, shape and size. Making chamfered and curved edges, allowing for and making grooves and sleeves and the like; removal of forms and cleaning of all exposed tie wires and rods; making good the harmed surfaces and edges and all surface finishing.</p> <p>2. Supplying, Casting, vibrating and curing as per specifications.</p> <p>3. Approved additives and admixtures.</p> <p>4. Incurred costs on Concrete Mix Designs, Sample taking, testing and providing test results certificates, storing and saving of samples, and preparation of bar bending schedules and workshops.</p> <p>5. Supplying reinforcement of any grade, size and length as detailed in the drawings, storing on site including cutting, bending and fixing in position and providing all tying wires, spacers, shop drawings, testing and bar bending schedules</p> <p>6. Painting of exposed surfaces of underground reinforced concrete elements with two coats of hot bituminous paint (75/25) ,or cold applied rubberized bitumen emulsion protective coating with fiber reinforcement, the strokes of each layer to be opposite to each other. The price include also backfilling as per details and engineer approval</p> <p>7. Steel bars used for alignment and fixing of reinforcement works, and extra steel added to assure proper detailing and safety.</p> <p>8. Temporary support and formwork.</p> <p>9. Measurement of Concrete elements shall be the net dimensions as detailed in the drawings. All recesses, openings and voids shall be deducted.</p> <p>10. Measurement shall be only for the seen surfaces of elements. Overlapping and measuring items twice under separate headings shall not be allowed.</p> <p>Slabs are measured from the center line to center line of external walls. All beams, drop beams, projection including fair face, sun breakers, and any part casted together with the slab will be included in the price of the slab.</p> <p>Columns are to be measured from top level of the slab to the bottom level of the beam or dropped beam.</p> <p>11.All measurements are as indicated in the drawings</p> <p>12. Steel Reinforcement is included in concrete price</p>				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

SKELETON WORKS - CONCRETE WORKS (SEC-02)

Bill No 2

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. CONCRETE WORKS.				
2.1	Supply and Cast Plain Concrete; a) Blinding Concrete grade 'B 150' With a minimum cement content of 200 Kg. per cubic meter under foundations, ground and tie beams. Thickness not less than 10 cm thick, should be according to drawings.	M.C	55		
	b) Rubble concrete ' B 150 ' With a minimum cement content of 200 Kg. per cubic meter with max. 30% crushed stones for filling cavities and voids which appears under foundation and walls according to engineers instructions.	M.C	1		
2.2	Supply and Cast Reinforced Concrete Grade 'B 280' With a minimum cement content of 325 Kg. per cubic meter. Price to include for painting with two coats of hot bitumen (75/25) (for the buried parts). or cold applied rubberized bitumen emulsion protective coating with fiber reinforcement for Foundations, footings Ground beams and Tie beams. (Measured between columns faces), Column Necks. (measured from top level of the footings to top level of the slab on grade),	M.C	330		
2.3	Supply and Cast Reinforced Concrete Grade 'B 200' With a minimum cement content of 250 Kg. per cubic meter For Slab on grade (15) cm. thick Slab Including reinforcement diameter 10 mm each 20 cm for shops and parking ,surface leveling, finishing, polyethylene sheets 500 micron, and all related works.	M.S	150		
2.4	Ditto but slab (10)cm thick for apartments Including reinforcement diameter 10 mm each 20 cm	M.S	780		
2.5	Supply and Cast Reinforced Concrete Grade 'B280' with a minimum cement content of 325 Kg. per cubic meter for:				
	a). Reinforced Walls of Stair case and elevators and where required	M.C	145		
	b). Reinforced concrete walls with two coats of hot bitumen (75/25) (for the buried and Backfilled parts) and insulation boards	M.C	115		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

SKELETON WORKS - CONCRETE WORKS (SEC-02)

Bill No 2

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. CONCRETE WORKS.				
	FORWARDED TOTAL				
2.6	Supply and Cast Reinforced Concrete Grade 'B 280 with a minimum cement content of 325 Kg. per cubic meter for the following: Columns. (measured from top level of the slab to the bottom level of the beam or dropped beam)	M.C	122		
2.7	Supply and Cast Reinforced Concrete Grade 'B 280' with a minimum cement content of 325 Kg. per cubic meter for 25 cm thick ribbed slabs, Price to include lay and arrange hollow concrete blocks 'Grade 35' (17/25/40) cm for ribbed slabs, using closed end blocks as required by the engineer at all ends, edges for all levels of building and where it is required. Price to include for projected beams, other beams projections, and drop beam.	M.S	2900		
2.8	Supply and Cast Reinforced Concrete Grade 'B 280' with a minimum cement content of 325 Kg. per cubic meter for stair case solid slab , landings ,steps and stair case side parapet .	M.C	70		
2.9	External Works:				
a)	Supply and Cast Blinding Concrete grade 'B 150' With a minimum cement content of 200 Kg. per cubic meter under foundations of external walls. Thickness not less than 10 cm thick, should be according to drawings.	M.C	15		
b)	Supply and Cast Reinforced Concrete Grade 'B 280' With a minimum cement content of 325 Kg. per cubic meter. Price to include for painting with two coats of hot bitumen (75/25) (for the buried parts). or cold applied rubberized bitumen emulsion protective coating with fiber reinforcement for Foundations of External Works	M.C	60		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

SKELETON WORKS - CONCRETE WORKS (SEC- 02)

Bill No 2

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. CONCRETE WORKS.				
	FORWARDED TOTAL				
c)	Supply and Cast Reinforced Concrete Grade 'B 280 with a minimum cement content of 325 Kg. per cubic meter for external walls with two coats of hot bitumen (75/25) (for the buried and Backfilled parts) and insulation boards	M.C	100		
d)	Excavation for external walls Foundation; from reduced level to bottom of blinding under footings and where required as per drawings, in any kind of soil to the dimensions and levels shown in the drawings. The price to include back filling with excavated suitable materials, or imported approved materials up to bottom of base coarse, removal of extra and unsuitable soil. Back filling material shall be applied on layers, 20 cm thick, watered and compacted to 100% to comply with modified AASHTO F.D.T (T-80)	M.C	120		
2.10	Provisional Item : supply and Build boundary stone walls (Sanibel), width of (60-80 cm) to increase the height of existing boundary walls ,the rate include supplying raw stone adjusting and shaping and building and all required works to complete the works	M.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No.3

SKELETON WORKS- CONCRETE BLOCK WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. MASONRY WORKS.				
	<p>PREAMBLE.</p> <p>1. All works of this bill shall be of Concrete blocks Grade 35 of high quality standards and as per specifications.</p> <p>2. Block works shall be measured in meter square. The net measurement of the seen elevations, excluding all openings and voids more than 0.1 M. S. in area.</p> <p>3. No allowance for thickness used other than those shown in the drawings.</p> <p>4. Rates of Block works include: -</p> <ul style="list-style-type: none"> · Vertical and horizontal joints. · Cement and mortar, · Galvanized angles butterfly ties (at joints and between walls) · Concrete filling at all ends including reinforcing steel to door and window openings, reveals, sills for windows and the like. · R.C. Door jambs for room doors as per detailed drawings · Lintels and bond beams to the full length of all wall, min 20 cm. High and in the same wall thickness of reinforced concrete grade B-200 with reinforcement steel (4Φ12), as specified per drawings. <p>And all needed to complete job as per drawings and specifications.</p>				
3.1	Supply and Build Concrete Block Walls, 'Grade 35' of any size blocks.				
	a. Hollow Blocks (10) cm thick for internal partitions and where required (10X20X40 cm)	M.S	2200		
	b. Hollow Blocks (20) cm thick for internal partitions and where required (20X20X40 cm)	M.S	1		
	c. ditto but hollow blocks (15)cm (15X20X40 cm)	M.S	70		
	d. ditto but hollow blocks (7)cm (7X20X40 cm)	M.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 4

SKELETON WORKS- STONE WORKS.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. STONE WORKS.				
	<i>PREAMBLE.</i> All Stone works shall be of local white stone of First Choice. Stone material, size, and texturing shall be in accordance with detailed drawings and Engineer's instructions and approval.				
	Stones shall be of not less than (5 cm. thick, 25 cm. high and of length ranging from 1.5 to 3 times the height.)Stones shall be homogeneous in color and texturing and free of any defects. Cutting, shaping and building of stone shall be in straight angles, no twisting, distortion or uneven sizes shall be allowed. All cuttings shall be made using Manjal.Measurement of all types shall be in Meter Square, for the net dimensions of the vertical plan of the elevations excluding openings of any area. No measurement will be made for any recesses, projections or sides of stone pieces. Measurement of door and window jambs and reveals, corner peaces, arches and 5cm stone coping and the like is not applicable. No allowances shall be made for stone pieces in any shape. No allowances or extra rates shall be considered for stone courses in lintels, overhanging slabs and roof slab courses. Taking all the above mentioned into account, measurement for stone cladding works will follow the shape of the cladded element. Rates of stone works shall include:- <ul style="list-style-type: none"> • Supplying , storing, protection and removal of rejected and surplus materials. • Shaping, cutting and fitting. • Mortar and backing concrete (plain concrete and/or cement blocks and plain concrete). • Galvanized steel ties, dowels, hangers, steel mesh and all tying tools where required • Erecting and dismantling of scaffoldings. • Pointing and pointing materials of any type, and cleaning of walls • Lintels and other reinforced concrete elements embedded in the stone walls including reinforcement. 				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No.4		SKELETON WORKS- STONE WORKS.			
ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 2 ') SKELETON WORKS. STONE WORKS.				
4.1	Supply and build all types of stone Walls of 30 cm. thick , to the full length and height shown in the drawings. Khalil first class and first quarry. Rough textured "Smooth Mulatash" for facades and smooth "Matabeh" for door and window jambs and reveals . a) Stone walls with plain concrete and cement block backing. Concrete backing of plain concrete grade B-200 and cement block Grade 35 (10*20*40 cm). Including Polystyrene insulation panels randoban 2 cm thick or equivalent and also all pieces required to complete the work i.e. sills jambs, corners, arches,coping,pink & white decorative stone ... etc as in details and drawings	M.S	2250		
4.2	Ditto but for "Mashrabeya" from industrial pink stone	No.	13		
4.3	Provisional Item : As in 4.1 but cladding with plain concrete and steel mesh and what is required to complete the work according to drawings and engineers approval to walls and where needed	M.S	350		
4.4	As in 4.1 but industrial stone for decorative elements as in the drawings and specifications, having certificate from the PSI (Palestinian standards institution) (Hawwash industrial stone or equal), the price includes all the tests needed .	M.R	127		
4.5	Provisional Item: as in 4.1 but smooth stone	M.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

SECTION 3

INTERNAL FINISHES

NUMBER OF BILLS " 5 "

Plastering Works, Bill No. 5

Tiling, Flooring, and Marble Works, Bill No. 6

Carpentry and Joinery Works, Bill No. 7

Steel and Aluminum Works, Bill No. 8

Painting Works, Bill No. 9

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 5

INTERNAL FINISHES - PLASTERING

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. PLASTERING.				
	PREAMBLE. PLASTERING to all areas shall be measured net, including openings, which are less than 0.25 Meter Sq.The price shall include for running rules , all narrow widths, for taking out joints on block walls or backing concrete face for key, for making good to frames around pipes and other fittings , plastering to jambs and reveals of openings, side of columns, window sills; all of which shall be measured as plastering . Price shall also include galvanized Expanded metal lath, angle beads at all appeared corners for the entire height, and plaster stops at opening edges, expansion joints, sills, labor, curing, erecting and dismantling of scaffoldings, additives, pigments and all incidentals required as specified and / or detailed on the Drawings.				
5.1	Two Coats of Cement and Sand Plaster over one slurry coat to walls and ceilings and where required including galvanized metal Lath, angle beads, plaster stops and all required as per Specifications and Drawings. The price shall include all narrow widths, for taking out joints on block walls or backing concrete face for key, for making good to frames around pipes and other fittings, plastering to jambs and reveals of opening, sides of columns, window sills (will not be measured in the plaster's quantities).				
	a. Three Coats Internal Plaster for walls, ceilings and where required	M.S	8300		
	b. Ditto but for Parapet and Wherever Required, price to include water proofing liquid with each coat.	M.S	400		
	c.Ditto but for external walls and Wherever Required, The fourth coat is troweled (shabriz with white cement) Topping For External walls. Price to include waterproof additives.	M.S	300		
5.2	Ditto but one coat plastering for shafts.	M.S	250		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 6

INTERNAL FINISHES - TILING, FLOORING AND MARBLE WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. TILING, FLOORING, AND MARBLE WORKS				
	PREAMBLE. 1. All tiling works (terrazzo, ceramics, and marble) shall be measured net in square meters. 2. Marble works for steps and treads of stairs shall be measured in square meter. 3. Marble works for window sills parapet coping and other openings shall be measured in squared meter. 4. Rate shall include preparation of surfaces under tiles, Finish to falls and cross falls, required gravel fill or sand special tile peaces for edges and the like, tile surface finishing, pointing and cleaning and all incidental as per specifications.				
6.1	Supply and Install Ceramic Glazed Wall Tiles, First choice and free from all defects. (Spanish made or equivalent - GRADE A) Price to include round edges tiles perimeters, plastic angles for edges, cutting, patching around the services bedding in cement mortar, grouting, pointing with white cement or special mortar for pointing and two coats of plaster. All works shall be in accordance with drawings and specification. Engineer shall approve size and color of tiles, which should be not less than 20 * 20 * 0.6cm (W3)	M.S	800		
6.2	Supply and Install Non-Slip Ceramic Glazed Floor Tiles, First choice and free from all defects Grade "A" . (Approved by Palestine Standards Institution) (Spanish made or equivalent - GRADE A) . Price to include sand with cement filling (Grade B-100) pointing with white cement or special mortar for pointing and cleaning on site . Engineer shall approve size and color , which should be not less than 20 *20*0.6 cm . (F3)	M.S	135		
6.3	Supply, Install and finish Pre-cast pre-polished Terrazzo Tiles size (30x30x2.7) cm, with Local marble chipping #4. Price to include Pre-cast Terrazzo skirting size (30 x 7 x 1.5) cm with same marble chipping, bedding and jointing in cement and sand mortar, pointing with white cement, required gravel fill, and on site grinding where required, polishing and cleaning. (F1)	M.S	2400		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron (July 2010)

BILL No. 6

INTERNAL FINISHES - TILING, FLOORING AND MARBLE WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. TILING, FLOORING, AND MARBLE WORKS				
	FORWARDED TOTAL				
6.4	Supply and Install Local Marble Sills ("njasa" or "thofr " or equal) set in white cement and Thresholds (3 cm. thick) for windows, doors, wash area and where required, Set in cement mortar bedding. Price to include grouting, polishing of face and seen edges.	M.S	325		
6.5	Ditto but for steps and treads of stairs Treads of 3 cm thick and Risers of 2 cm. thick. Price shall include supplying and installing local marble for stair flight skirting in parallel setting to the nosing line at an average height of 18.4cm. and 20 mm. thickness, and local marble water stop (5cm wide X 3cm thick X length as wide as the tread of the stair minus riser thickness) fixed at the end of treads for parapet cladding as in the drawings if needed. Also the price to include filling under tiles with cement and sand 1: 6 ratio, bedding in white cement mortar, grouting, pointing, polishing of face and all related works. Note: The measurement for each stair will be from the adjacent wall to the external edge of the water stop of that stair.	M.S	390		
6.6	Supply and Install Local marble for landings and wherever needed (2 cm. thick). Set in white cement mortar bedding price to include sand fill, grouting, polishing of face and seen edges, skirting of local marble 2cm thick (F2)	M.R	125		
6.7	Supply and Install Local marble for sink top 3cm thick price to include fixing ,grouting, polishing of face and seen edges, also hall for sink ,water stop edges , divisions polished from both faces 3cm local marble with 1X1cm groove for the shelves .according to drawings and engineers approval.	M.S	72		
6.8	(Provisional Item) Supply and Install Italian marble for sink top 3cm thick price to include fixing ,grouting, polishing of face and seen edges, also hall for sink ,water stop edges , divisions polished from both faces 3cm local marble with 1X1cm groove for the shelves .according to drawings and engineers approval.	M.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron (July 2010)

BILL No. 7

INTERNAL FINISHES - CARPENTRY AND JOINERY WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	<p>(SECTION NO. ' 3 ')</p> <p>INTERNAL FINISHES.</p> <p>CARPENTRY AND JOINERY WORKS</p>				
	<p>Sizes of carpentry works given in the Bills of Quantities are skeleton sizes and shall be as per Drawings.</p> <p>Sizes of doors and other items mentioned in the Bills of Quantities shall allow for tolerance to suit the structural openings shown in the Drawings:</p> <p>Wooden doors and pair of doors shall be measured in number for each structural opening, unless stated otherwise in the Bills of Quantities.</p> <p>Rates for carpentry and joinery work shall include:</p> <p>a) Shop and coordinated drawings..</p> <p>b) Allowance for plastering and tiling and the like.</p> <p>c) Cutting and fitting around obstructions, Bedding and painting.</p> <p>d) Grounds, blocking and backings.</p> <p>e) Plugging concrete, block work, and stone work, and making well ,frame insulation beneath tiles</p> <p>f) Ironmonger including Turkey made or equal cylindrical locks ,Turkey made or equal handles stoppers, screws, temporary fixing, re-fixing, oiling and adjusting.</p> <p>g)Providing 3 keys for each lock including tagging.</p> <p>h) Glass and glazing including cutting to size and putty.</p> <p>i)Preparing surfaces to receive finishes.</p> <p>j) Painting, varnishing, polishing, oiling, and the like, to any area or width in any location including work in multicolor and cutting in edges and putty.</p>				

BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron (July 2010)

BILL No. 7

INTERNAL FINISHES - CARPENTRY AND JOINERY WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
7.1	Supply and Fix Wooden Doors 4.5cm Thick single or double sashes. With (Frame). (5*3.5) cm pine wood edging and (4.2*9.5) cm soft wood stile. Edge strip banding of width 4.0 mm. plywood veneer on both sides, color as directed by engineer. Door paneling to be soft wood 2.5X3.5 cm. each 2.5 cm., frames of hardwood (Swedish) 4cm thickness, width according to the wall thickness' and Allowance of 4 - 6 cm. thickness for plastering and tiling purposes, immersed in wood preservative before erection then embedded completely in sand - cement mortar and completely anchored as per specification. Architrave of Hardwood (Swedish) (6*1.2) cm, price to include ironmongery, door stoppers ,handles, gaskets cylindrical Lock ((Approved by Palestine Standards Institution), and painting in three coats of oil paint in addition to primer coat. All as per Detailed Drawings, specification and instructions of supervisor engineer.				
	a.Door type(D1)	NO.	96		
	b.ditto but bathroom doors with special lock (Turkey made or equal)door type (D2)	NO.	48		
7.2	ditto but access panels (200X50)cm for shafts in staircase	NO.	30		
7.3	supply and install access panels (75X60)cm in bathrooms for mechanical shafts from gypsum board covers with ceramic tiles as in drawings and engineers approval.	NO.	30		
TOTAL					
TOTAL CARRIED TO SUMMARY					

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 8

INTERNAL FINISHES - STEEL AND ALUMINUM WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. STEEL AND ALUMINUM WORKS				
	Preamble. Metal and Aluminum works shall be measured in Number or meter square for Architectural Openings as specified Rates for metalwork shall include for: Preparing shop drawings, Drilling, counter sinking, screwing, bolting and riveting. Lugs, plugs, holdfasts and the like. Gaskets, sashes, double weather strips and external and internal silicon filling around frames. Ironmongery including locks, stoppers, handles, temporarily fixing, prefixing, oiling and adjusting. Providing three keys for each lock . Hardware including cramps, dowels and the like. Glass and glazing including cutting to size, putty and rubber. Preparing surfaces for and painting one coat of primer before fixing. Sealing and Painting to any area or width in any location including work in multicolor and cutting in edges. All other accessories and incidentals required executing the work.				
8.1	a-Supply, install and operate local made sliding Aluminum Windows, Section NABCO or equal (monoblock), three runs for horizontal and vertical partitions with bathtub (ambatia) for the lower frame including, wide frame to cover the external concrete jamb fiberglass fly screen mesh, with protective electrostatic applied polyester powder paint of 70-80 microns (mesh color) or color approved by the Engineer Price to include, double 4X4mm Float clear glazing belgum or equal and all other accessories and fittings (metra or arbal) , shutter box to complete works as per drawings and specifications.				
	1. Window Type AW1 (2X1.25) m	M.S	85		
	2. Window Type AW2 (1.6X1.25) m	M.S	66		
	3. Window Type AW6 (1.6X1.5) m	M.S	34		
	4. Ditto but for sliding aluminum windows with fixed panels AW4 (0.8X1.25)m	M.S	48		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 8

INTERNAL FINISHES - STEEL AND ALUMINUM WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. STEEL AND ALUMINUM WORKS				
	FORWARDED TOTAL				
	5. Ditto but for sliding aluminum windows with arch fixed panels AW5 (0.8X1.25) m	M.S	29		
	6. Ditto but for sliding aluminum doors but double 4/6 mm clear glazing pelgum or equal AD1 (2X2.25)m	M.S	108		
	7. Ditto but type 2200 NAPCO or 40/66 or equal for kitchen balcony leaf doors and were required AD2 (0.9X2.25)m	M.S	39		
	8. Ditto but type 4000 or 4550 (overturning windows)for bathrooms and were needed with leaf fly screen AW7 (0.6X0.75)m	M.S	18		
	9. Ditto but type 4000 or 4550 with fixed panel for staircase AW3 (0.8X1.25) m	M.S	3		
	10.Ditto but (0.5X1)m for staircase windows AW8	M.S	6		
	11. Ditto but fixed rounded panel for staircase AW16 (diameter 50 cm). And putting the Logo of King Saudi Arabia on it according to drawings and engineers approval	M.S	3		
	12. Supply and install Aluminum section to cover expansion joints 8cm width white color as per drawings and engineers approval, price to include mastic fill(Poly - Flix Two Component) backing rod and galvanized clips every 30 cm, and all required works and materials as per specifications , drawings and eng. approval.	M.L	35		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron (July 2010)

BILL No. 8

INTERNAL FINISHES - STEEL AND ALUMINUM WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. STEEL AND ALUMINUM WORKS				
	FORWARDED TOTAL				
8.2	Supply and fix metallic Fasoon steel two leaf doors as per drawings , specification and supervision of engineer . Price to include 2mm thick galvanized steel frame , fixing complete, Ironmongery, cylindrical locks handles (Approved by Palestine Standard Institution) , ,gaskets oil paint in three coats in addition to two primer coats and special primer coats for galvanized steel .(as per drawings).				
	1. main door for apartments and roof Door type SD1 size (110X225) cm.	No.	31		
	2. Ditto but with special push out handle for fire exit SD11 size (90X225)cm	No.	0		
8.3	Supply and Install door and windows Protection Steel Grilles. As detailed in the drawings including fixation, accessories, welding, grinding , smoothening, Ironmongery, cylindrical locks Wally or equal , handles (Approved by Palestine Standard Institution) , 6mm wired glass , gaskets, Price also to include 2mm galvanized steel frame for doors, oil painting three coats in addition to two primer coats special primer coats for galvanized steel				
	1. SW1 for windows in ground floors and where needed	M.S	48		
	2. Ditto but for handrails in balconies and where needed SHR (50cm) height	M.L	145		
	3. Ditto but for 2.5 m height SHR1	M.L	60		
	4. As in 8.3 but one leaf door for balconies in ground floor and wired glass SD2 (0.9X2.25)m	No.	6		
	5. Ditto but 2 leafs for staircase main entrance SD3 (2X2.5)m	No.	3		
	6 Ditto but two leaves and wired glass SD4	No.	3		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 8

INTERNAL FINISHES - STEEL AND ALUMINUM WORKS (SEC- 03)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. ' 3 ') INTERNAL FINISHES. STEEL AND ALUMINUM WORKS				
	FORWARDED TOTAL				
8.4	as in 8.3 but steel sections handrail for stircase 50X30X1.5 mm.	M.L	94		
8.5	supply and install steel frames covered with fiberglass sheets to cover ducts and where it is required price to include fixation, painting and what is required to complete the work according to drawings, specifications and engineers approval	M.S	10		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No.9

INTERNAL FINISHES - PAINTING WORKS

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. '3 ') INTERNAL FINISHES. PAINTING WORKS				
	Preamble. painting and decorating to walls , ceilings and the like shall be measured net in meter square .painting to other works shall be included in the related items .Color as specified by engineer .Paints shall be supplied to site in sealed container ,as approved by the engineer ,and site mixing shall not be permitted .The contractor rates shall include for supply of all materials. workmanship, samples , primers surface preparation ,protection of painted surfaces, application to all heights as required of works , repair of all damaged surface at the contactor 's expenses , and all other requirements as stated in specifications. All paint types should be approved and having a supervision certificate from the PSI (Palestinian standards institution) , (APC paints or equal) . The price shall include all narrow widths , painting to jambs and reveals of opening ,sides of columns , window sills (will not be measured in the paint quantities).				
9.1	Supply and paint high quality emulsion paint, for walls as per indicated in finishing tables, on one priming coat and two finishing coats, using putty where required, as per satisfaction of the supervisor engineer.	M.S	5000		
9.2	Ditto but high quality Polysid paint, for ceiling one priming coat and two finishing coats, using putty where required, as per satisfaction of the supervisor engineer.	M.S	2600		
9.3	Supply and paint high quality emulsion paint, for walls as per indicated in finishing tables, on one priming coat and two finishing coats, using two coats of complete putty, as per satisfaction of the supervisor engineer.	M.S	1		
9.4	supply and paint matte oil paint (enamel paint) for staircase walls and where required ,three coats (two undercoat + one finish gloss) with two coats of complete putty as per satisfaction of the supervisor engineer.	M.S	400		
9.5	Supply and paint anti Fungus paint (APC Paints or equal) for ceiling in bathrooms and kitchens (three coats and primer coat) as per satisfaction of the supervisor engineer.	M.S	400		
9.6	Supply & paint three coats of external quality waterproofing supercyl paint (APC Paints or equal) for external Staircase walls, parapets ,external walls at entrance ,and wherever needed, and directed by the engineer and according to drawings and specifications.	M.S	400		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**SECTION 4
INSULATION & ROOFING
NUMBER OF BILLS " 1 "
INSULATION & ROOFING, Bill No. 10**

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. 10

INSULATION, AND ROOFING (SEC - 04)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. '4') INSULATION, AND ROOFING				
	<p>Preamble. All finishes, shall be measured superficially net unless otherwise stated clearly. All finishes, include triangular shaped fillets except cement and sand lining to gutters, shall be measured on the slab surface only, parapets and column stubs to be included in the price and not to be measured Cement and sand lining to gutters shall be measured in linear meter, unless other wise stated clearly. Rates for cement and sand work shall include for : Hacking concrete, applying cement slurry or raking out joints of block work to form key. Application to any surface. Finish to surface, to falls, cross-falls and currents. Forming bays including joints. Finish to edges and arises. Making good around steel sections, pipes, tubes, bars, brackets, outlets, and the like. Measurement for concrete screed and waterproofing membrane shall be for horizontal projection of roof area as calculated on roof plan between plastered surfaces of parapets and walls only. Corner chamfers and vertical waterproofing shall not be measured. and is included in expansion joint unit prices. Rates for waterproofing and roof sheeting shall include for Preparation of surface, cutting in edges. Overlaps priming and treatment at the corners and floor drains. Dressing over parapets and stub columns including forming groove to receive edge of plasticised bitumen membrane and sealing with elastic sealer. Side and end laps, Fittings including bolts, hook bolts, screws and washers, Sheets of any width or length.</p>				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
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BILL No. 10

INSULATION, AND ROOFING (SEC - 04)

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
				US\$	US\$
	(SECTION NO. '4') INSULATION, AND ROOFING				
10.1	Supply and cast plain Concrete Grade 'B-150' Screed to Roof, cast to falls not less than 30 mm. thickness in the lower point as shown on detailed drawings with smooth surface finish,. All to comply with specifications and Engineers directions. The mix should include waterproofing additive from approved company including Hunching and lining to the edges of roof screed and parapet, With slope 1: 1 to minimum height of 20 cm.	M.S	750		
10.2	Supply and apply waterproofing membrane of bitumen rolls. (4.5 mm. thick. Density 180g per m.s. of reinforced polyester sheets)novaglass or equivalent covered with layer of crushed white stone with overlaps of not less than 10 cm and painted with two coats of white bitumen. price to include primer coat, and all sheets flashing. For roof of main building, and roof of staircase.	M.S	750		
10.3	supply and install non toxic insulation Polystyrene panels 2 cm thick or equivalent for expansion joints between the buildings	M.S	130		
	TOTAL				
	TOTAL CARRIED TO SUMMARY				

**SECTION 5
ELECTRICAL WORK
NUMBER OF BILLS "1"
Bill No. 11**

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (11)

Sec 05- ELECTRICAL WORK

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. ' 5 ') ELECTRICAL WORKS				
	<p>Preamble:</p> <p>This BOQ shall be read in conjunction with parts of the electrical technical specifications general and particular and the electrical drawings except where otherwise indicated. The unit Price for all items in all sections shall include for supplying, installation, and commissioning unless otherwise specially mentioned. The price is also including submittal of working drawings, as built drawings and coordinating drawings by sheets and by computer diskettes. All civil & finishing works related to the concerned item shall be included in the unit price, unless otherwise indicated and according to Alkhalil Municipality requirements</p>				
11.1	a) Supply , install and commissioning Main Distribution Boards of Buildings metal oven painted 2mm thickness includes volts and amperes measuring instruments, spaces for 10 KWH meters, busbars,(MCCB) Molded Case Circuit Breakers with Rupturing capacity (R.C) of 25 K.A. , miniature circuit breakers MCB with Rupturing capacity of 6K.A and all accessories and all circuit breakers , detailed on drawings. price to include the service distribution board (DB-S) which exists inside the main distribution boards	No.	3		
	b) Supply , install and commissioning distribution boards for apartments includes all circuit breakers as detailed on drawings	No.	24		
11.2	a) Supply, Install and Connect Lighting Points including Conduits and (3*1.5 mm2) Wires up to the DB,price to include Light Switches(Gewiss or equal) and all accessories as per drawings and specifications.	No.	530		
	b) stairs push button with indication lamp	No.	16		
	c) Stairs timer	No.	3		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (11)

Sec 05-

ELECTRICAL WORK

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. ' 5 ') ELECTRICAL WORKS				
	FORWARDED TOTAL				
	e) Electrical water heater point and the switch with indication lamp	No.	24		
	f) Supply, Install and Connect push button for electrical bell (Gewiss or equal) and electrical bell (italy made or equal)	No.	24		
11.3	Supply, Install and Connect the following Socket Outlets points including (3*2.5mm2) wires, conduits, sockets, draw boxes and all accessories up to DB as per drawings and specifications.				
	a) 3 pin Single-Phase 16 Amp sockets.(Gewiss or equal)	NO	442		
	b) Ditto, but waterproof	NO	24		
	c) As item (a) but double socket 16Amp.(Gewiss or equal)	NO	24		
11.4	Supply, Install and Connect the following Lighting Fixtures including P.F. correction capacitors,Lamps and all accessories as per drawings and specifications.				
	a) Flourescent 2*36W Gaash or equal	NO.	171		
	b) 2X13W PL(globe) Ceiling monted mounted(WP)	NO.	137		
	c) Ceiling(Dewi) pendulum with 100W lamp	NO.	120		
	d) Wall monunted fixture(globe) with 60w lamp(WP) local made	NO.	84		
	e) EXTRACT FAN including switch (Vortice or equal)	NO.	24		
11.5	Supply, Install and connect the following feeder lines				
	a) Main feeder pipe from outside elect. MH near the pole to main distribution boards price to include the manhole near the pole with heavy duty cover , pvc coduites, excavation and what is required as in the drawings	L.S	1		
	b) 3X6mm2 XLPE cable in 1 1/4" PVC pipe	M.R	380		
	c) 5X6mm2 XLPE cable	M.R	5		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (11)

Sec 05-

ELECTRICAL WORK

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. ' 5 ') ELECTRICAL WORKS				
	FORWARDED TOTAL				
11.6	Telephone and TV and intercome Systems supply and install, connect and test the following items including conduits in buildings and apartments, boxes, wires and main feeder pipe according to drawings and specifications and PALTEL requirements				
	a) Supply, install, connect a 2" pvc pipe from MLVB to external Manhole price to include excavation and what is required to complete the work	NO.	25		
	b) Telephone socket outlet (Gewiss or equal)	NO.	24		
	c) TV socket outlet (Gewiss or equal)	NO.	24		
	d) Low voltage board for buildings	NO.	3		
	e) Low voltage board for apartments, price to include wiring tel. Cables Teldor size 0.5mm2 in 3/4" pvc pipes from main LVB of buildings to apartments and what ever required to complete the work	NO.	24		
	f) Supply and install intercome system for buildings (Farfisa or equal) consists of main station, 8 branch stations, doorlock ,power source and the internal hands. Price to include intercome cables 8X0.5mm2 Teldor inside the required PVC pies and what ever required to complete the work	NO.	3		
11.70	Supply, Install and Connect a complete Earthing System of (One OHM) ground resistance, including galvanized steel strip 30*3mm welded each 1.5m with steel structure and including suitable no. of electrodes and earth wires 1*16mm2, plates, excavation, back filling of all pits to obtain the required resistance , and including an inspection pit (Manhole) with concrete cover, and all the accessories as per drawing and specifications.	L.S	1		
	TOTAL				
	TOTAL CARRIED TO SUMMERY				

**SECTION 6
MECHANICAL WORK
NUMBER OF BILLS "1 "
Bill No. 12**

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	<p>Preamble.</p> <p>Sanitary Fixtures shall be measured in number, price to include cold and hot water pipes supply and fittings to collectors, also to include drain supply, fittings connection, to manholes.</p> <p>Internal sanitary sewers network shall be included in the rates of sanitary fixtures and appliances.</p> <p>Rates of all fittings , fixtures , appliances and pipe laying shall include:- Supply of material, workmanship, installation, testing and commissioning.</p> <p>Insulation with glance and two coats of hot bitumen Rates to include also all pieces and fittings, including by passes, float, cleaning outlets, automatic vents, vents and stack covers, valves and non return valves and the like needed to complete works as per specifications.</p> <p>Insulation and painting as called for in specifications.</p> <p>Excavation and cutting for all pipe laying works, bedding back filling and all works connected with pipe laying All ties, sleeves, joints, tie bolts and rods, brackets and the like. Rates to include Workshops, Coordinated and as-built drawings as approved by the Engineer . All fittings (Elbows, T", Y" , Shall be UPVC Heavy duty</p>				
12.1	Supply and install 6" UPVC pipes heavy duty , at least (4.9mm) thick, Local Made or equal and must be approved by Palestine Standard Institution between manholes with all required materials, sockets, fittings , rubber seals, etc. The price includes excavation ,concrete cover of at least 15 cm around the pipes including back-filling and disposal of surplus excavated materials. Excavation shall be to any depth, width, and in any type of soil or rock.	M.R	250		
	Ditto but UPVC 4"	M.R	120		
	Ditto but UPVC 8" at least 5.9mm thick	M.R	80		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	FORWARDED TOTAL				
12.2	Supply and install 4" UPVC pipes heavy duty ,Local Made or equal and must be approved by Palestine Standard Institution for the sewage and rain water. Price includes digging for pipes, supports, hangers and all rubber joints and sealants, vent caps , and laying at least 8cm. concrete around underground pipes. Main piping in risers or above false ceiling or in corridor or in sanitary blocks are measured in meter run.	M.R	540		
12.3	a Heavy duty chromium plated 4" floor drain siphon trap with screw type screen , complete with all required fittings and connections using reduced "T" for connecting sanitary fixtures. (Local made or equal)	NO	113		
	b. Ditto, but 4/2".	NO	24		
12.4	Heavy duty chromium plate 4" clean-out with screw type cover , complete with all required fittings and connections using reduced "T" for connecting sanitary fixtures.(Local made or equal)	NO	90		
12.5	Supply, installation and commissioning of UPVC rainwater roof drain. Rainwater drain size is: 20cm x 20cm. Local made or equal.	NO	9		
12.6	Supply and install Sewerage manholes, of various depth, to be constructed of precast circular concrete of 15cm minimum wall thickness, 15 cm bottom slab ,cover and C.I. steps for manholes of depth exceeding 100 cm . Price shall include for plain , and fine concrete benching , plastering , excavating , backfilling and disposal of surplus excavated materials . Excavation shall be in any type of soil or rock.				
	60X60cm, 25 ton C.I cover	NO	8		
	Ditto but 60x60cm, 8 ton C.I cover	NO	10		
	Ditto but 80X80cm Manhole 25 ton CI cover	NO	23		
	Ditto but 80X80cm Manhole 8 ton CI cover	NO	11		
	Ditto but 1X1m Manhole 25 ton CI cover	NO	3		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
(July 2010)**

BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	FORWARDED TOTAL				
12.7	Supply & Install Porcelain sink of size 60 x 49 cm of turkey made or equal for the Kitchens as shown in the drawings, to be placed in the Marble. Price shall include all fixation and hanging bracket, sealants, pedestal and all other required materials, including connection to drainage system and chromium plated mixer (Turkey made or equal) with chromium plated handle wall type. the price also includes connection to Pexogol pipe	NO	24		
12.8	Supply & Install Porcelain W.C. bowl class "A" white color Turkey made or equal , with heavy duty white seat and cover. Price includes ceramic flush tank, hanging iron steel bracket, bolts and nuts, as well as flexible flush hose , valve, porcelain paper holder, connection to pexogol pipe and all related materials.	NO	48		
12.9	Supply & Install Porcelain wall hung wash basin white color of size 50 x 45 cm Turkey made or equal. Price shall include chromium plated mixer (Turkey made or equal) with chromium plated handle wall type. the price also includes connection to Pexogol pipe, ceramic soap holder and all fixation and hanging bracket, pedestal and all other required materials, including connection to drainage system.	NO	48		
12.10	Supply and install steel or fiberglass shower 80x80 cm price to include chromium plated mixer (Turkey made or equal) with chromium plated handle wall type, ceramic soap holders and all fixation and hanging and all other required materials. the price also includes connection to Pexogol pipe and connection to drainage system	NO	24		
12.11	supply and install chromium plated tap for washing machine price to include connection to pexogol pipe and connection to drainage system and all other required materials.	NO	24		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
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BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	FORWARDED TOTAL				
12.12	Supply and install Schedule 40 galvanized steel pipes "Akko make or equal" with all necessary fittings such as elbows Tees, unions, air vents, supports, hangers, shields, saddles, plastic tape, etc. All piping hung on shafts, or in riser, and in sanitary block are measured in meter run. All pipes imbedded in walls shall be coated with 3-layers of extruded polyethylene. All pipe joints imbedded in walls shall be coated with thick asphalt layer.				
	a. 1/2" diameter pipe	M.R	590		
	c. 1" diameter pipe	M.R	580		
	e. 2" diameter pipe	M.R	45		
12.13	as in 12.12 but pipes insulated with VIDOFLEX tube material of minimum 13mm thickness, including all necessary accessories e.g. adhesive material etc. for hot water piping, complete with the insulation of all fittings e.g. elbow, "T" , union , etc. The price includes the supply and rolling of the plastic band 10cm wide around insulated pipes. Measurements are taken net according to true length of pipes.				
	a. 3/4" diameter pipe	M.R	530		
12.14	Supply, Install and test Pexgol pipes 16mm dia. Price to include Copper Adaptors, elbows, and all needed fittings and external sleeve tube 25mm dia. for protection of interior tubes .	M.R	2500		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
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BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	FORWARDED TOTAL				
12.15	Supply, install and test Copper Collectors1" dia., as made by Turkey made or equal. Price shall be per opening (eye), and shall include for the required copper adaptors, hangers, supports, ties, air vents. Collectors shall be installed on walls, as shown on drawings in the corridor. The work shall be completed as specified and according to the Engineer's instructions.	Eye	216		
12.16	Ditto but 3/4" diameter	Eye	96		
12.17	supply and install steel painted cabinets (Local made oven painted or equal) for collectors price to include fixation and any other required materials to complete the work	No.	24		
12.18	supply and install steel painted cabinets for water meters (10 meters) price to include fixation, locks and any other required materials to complete the work(price not includes the meters)	No.	3		
12.19	Provisional Item Supply , install, connect and test a hot water solar system, (original or equal. Unit price shall include solar collectors of 6000 Kcal/h capacity , 150 liters hot water cylinder horizontal type , all piping and connection till main water pipes (hot and cold) concrete base and all accessories needed as per drawings, specifications and engineers' instructions. 12000 Kcal/h (two panels of 6000 Kcal/h)	No.	1		
12.20	Supply , install , connect and test a plastic water tank (black color) of 1500 liters capacity, including metallic stand with cross steel supports, painting , valves, float valve , union with all necessary fittings , piping and connections till main cold water piping and all accessories; all according to the engineers' instructions and approval.	No.	32		
	TOTAL				
	TOTAL CARRIED TO NEXT PAGE				

**BILLS OF QUANTITIES - Construction of King Abdullah Bin Abd Al Aziz City for Charity Housing (Block 3)-Hebron
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BILL No. (12)

MECHANICAL WORKE (SEC 6)

Item NO.	DESCRIPTION	Unit	Quantity	Rate	Total
				US\$	US\$
	(SECTION NO. 6) MECHANICAL WORKS				
	FORWARDED TOTAL				
12.21	(Provisional Item): Supply, install ,test and operate 6 passengers lift, and to operate at velocity 1m/s [(LG-Korea, Schindler-Swiss, Mitsubishi-Japan) , price to include , all installing process, equipments, control units, electrical panels and cables and all accessories and what required to complete installing and operating the lift in accordance to specification below and engineers approval.				
	To serve 5 stations	No.	1		
	To serve 4 stations	No.	2		
	Drive: VVVF closed loop system, worm gear machine. Operation: Full collective Car door protection: 2 photo sensors car door finish: Painted steel with wide jambs and transom panel above jamb Car flooring: recessed granite 20mm Car Walls: Painted steel Maintenance Box: at top of car contains up down button and maintenance operation switch Car operating panel: full height mirror stainless steel, push buttons for each served floor, door open button, door close button, fan button, emergency call button, interphone 3 way and alarm buzzer, overload signal, instruction plate, emergency car light. Roping: 1:1 Note: the contractor should submit at least two offers for the client to choose, in addition to maintenance contract				
	TOTAL				
	<u>TOTAL CARRIED TO SUMMARY</u>				

SUMMARY

Section No.	Bill No.	Title	Amount
			US \$
1	1	Excavation, Backfilling And Site Works	
2	2	Skeleton Works - Concrete Works	
2	3	Skeleton Works - Concrete Block Works	
2	4	Skeleton Works - Stone Works	
3	5	Internal Finishes - Plastering Works	
3	6	Internal Finishes - Tiling, Flooring and Marble Works	
3	7	Internal Finishes - Carpentry and Joinery Works	
3	8	Internal Finishes - Steel and Aluminum Works	
3	9	Internal Finishes - Painting Works	
4	10	Insulation, Roofing and Expansion Joints	
5	11	Electrical Works	
6	12	Plumbing, Sanitary and Mechanical Works	
Grand Total - Including Provisional items			
Percentage % Discount or Addition			
Discount or Addition Amount			
Net Grand Total - Including Provisional items			

All Prices exclude taxes of any kind except income Taxes.

The Sum of : ----- USA(\$)

and ----- Cent

Signed and Sealed:- -----

Authorized :- -----

Title:- -----

Signature:- ----- Date:-----