

Pedestrian bridge STH078					
General Specification					
1	All works and the materials supplied by the contractor must be in according with the relevant Iraq's standard Specifications (It's the contractor responsibility to obtain any relevant Iraqi specifications by visiting ministry of construction and housing web site: www.moch.gov.iq (or physically obtain those documents from the mentioned ministry) in addition to Iraqi technical specification for building works.				
2	The contractor must provide samples, catalogues for testing / inspection and approval by the site engineer.				
3	Contractor must pay the cost for samples including any laboratory tests, both inside and outside the country as required.				
4	The price of works includes all job requirements as per Iraq's standard specification.				
5	The contractor must provide PPE for all laborer's, personnel, engineers and possible visitors to the site.				
No	Item Description	Unit	Quantity	Unit Price	Amount
Foundation site preparation, leveling, modification and excavation works					
1	Site preparation: Supply of materials, tools, machinery and manpower for site preparation. The work includes: 1-Cleaning the site from light debris, scattered stones, undesired plants and other Organic materials, drain water if any, dust and soil on the floors. 2-Clearing, stripping and levelling of the site, scrape the soil layer to a thickness of 20 cm for the entire area. 3-Dumping of all the rubble of the cleaning site to a site approved by the local authorities. 4- planning the site's land according to the necessary levels. All works should be done according to the instructions of the supervising engineer. All needed work to complete the job will be included in the price.	LS	1		0
2	Excavation works: Supply of materials, tools, machinery, manpower and carrying out excavation work for foundations according to the designed levels, with the leveling of the excavation bottom to reach the required soil resistance with a leveling percentage of no less than 95% of the laboratory dry density, provided that the excavation bottom is horizontal and the sides are vertical. The works include leveling, transporting, loading, and unloading all surplus materials to a site approved by the local authority. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m ³	100		0
3	Backfilling works-subase type B: Supply of materials, tools, machinery, and manpower for backfilling, by using subbase materials type B from natural sources free from clay, silt, or any or organic materials. Backfilling material shall be applied on 2 layers, the thickness of the layer is not less than 15 cm, watered, and compacted to min 95% of MDD (Maximum density dryer). All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m ²	80		0
Concrete works					
4	Plain Concrete: Supply of materials, tools and manpower for casting (10cm) plain concrete under the foundations (C25MPa) using sulphate resistance cement. The work includes all the requirements of concrete covers, leveling and formworks. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m ²	70		0
5	Reinforced Concrete for foundations: Supply of materials, tools and manpower for casting reinforced concrete foundations using sulphate resistance cement with a resistance of (40MPa) at the age of 28 days and according to the dimensions and details shown in the plans, it is reinforced using two layers of reinforcing steel Ø16 mm @15cm c/c in both directions, with anchor bolts installed (bolt for the purpose of fixing the bases of the bridge columns with a layer of 500 micron nylon waxed under the steel before pouring, the price includes adding bonding agent material between the old and new concrete(if any) and coating with asphalt 20/30 for all concrete surfaces in contact with the soil. The work consists of all the requirements for steel reinforcement, formworks and spraying with water for seven days after pouring. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m ³	80		0
Steel Structure for the Bridge and the Stairs					
6	Anchor Bolts: Supplying, preparing and installing anchor bolts, type M25, to be installed in the foundations based on the base iron layer and made of stainless steel for the purpose of fixing the columns to the foundation. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	No.	178		0
7	Steel base plate (50*50)cm: Supplying, installing and leveling base plate with dimensions of 50*50 cm, cut and drilled as needed and with a thickness of 16 mm, for the purpose of installing columns on concrete foundations, including the price of injection work between the sheets and the foundations using grout material. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	No.	16		0
8	Steel Columns Sections: Supply and install new steel sections for columns, sections will be (H-Beam) section with dimensions of (300*305) mm, Web thickness 15 mm, and Flange thickness 15 mm, work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m.l.	80		0
9	Steel I-Section for Girder: Supply and install new steel I-section for Girder with dimensions of (30*30) cm Web thickness 11 mm, and Flange thickness 8mm, work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m.l.	72		0
10	Steel U Channel: Supply and install new steel channel with dimensions of (30*15) cm and thickness of 12 mm. work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m.l.	100		0
11	Steel Sections (100*100*4)mm: Supply and install new square hollow sections (100x100x4mm) steel sections to connect the bridge parts together in an inclined and vertical manner purelines. work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m.l.	300		0
12	IPE 240: Supply and install new steel sections IPE 240, use for connects the girders together, and for the stairs frame, the work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m.l.	200		0
13	Checker plate: Supply and install new checker plate iron sheets with a thickness of 5 mm for floors and stairs. work include welding, bolts, fixing and support sections. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	m ²	160		0
Cleaning and painting works					
14	Cleaning and painting works Supplying, Preparing materials and equipment and carrying out sandblasting, cleaning and painting works for all parts of the iron bridge with stairs using anti-rust and weather resistance (humidity and heat) paints (primer) and a layer of (epoxy) paints and a final layer of (Jotun) type. The final colors are chosen by the supervision committee. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	LS	1		0
Electrical works					
15	LED Lighting (outdoor) 50w: Supplying ,Installation, testing and commissioning of prewired outdoor fittings of all pendant type complete set, includes wiring/connecting with 1.0 kV grade 2*1.5mm ² PVC insulated copper cable/wires laid inside existing concealed PVC pipe and if required laid through new surface PVC pipe (20 mm Dia) with 6 A switches with all accessories. The price includes supplying, installing, connecting, laying, drilling & cutting (concrete wall if required) and commissioning to complete works as required. All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost.	No.	16		0

16	Main Distribution Board with photocell: Supply, install and connect Main distribution board with metal stand consist of metal board box of (60*80) cm dimension(water proof type), digital screens of Ammeter, voltage and frequency meters, signal lamps, bus bar of 100 Amp capacity for each one, with all connection and installations items with all accessories. The Price includes supply, install, connect and commission, necessary cutting, drilling, testing with all accessories to complete works as required. A- [(1No.) 1x63A, MCCB type]. B- [(4 No.) 10 A, MCB Type] C- Connector 100Amp, with photocell, and selector switch. D- fire extinguisher. E- (1 No) Residual current circuit breaker (RCCB), with a leakage sensitivity not exceeding 0.03 amp All works should be done according to the instructions of the supervising engineer. All needed works to complete the job should be included within the cost	No.	1		0
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17	Cable (2x16mm²) for the main power source to the MDB: Supply, lay and connect Unarmored cable of (2x16) mm ² of low tension type from the national electricity power line to the main distribution board, and the main Source with all accessories. The price includes supplying, installing, connecting, laying inside pvc pipes, poles, or any other required s to complete the work, and commissioning drilling, cutting to complete works as required. All works should be done according to the instructions of the supervising engineer. <u>All needed works to complete the job should be included within the cost.</u>	m.l.	150		0
18	Trash Basket : supply and install trash basket with 60-80l with all requirement the location for each one according the instructions. All works should be done according to the instructions of the supervising engineer. <u>All needed works to complete the job should be included within the cost.</u>	No.	2		0
Finishing					
19	Sunshade for the Bridge and the Stairs Supply of materials, tools, and manpower to install Sunshade, for the bridge using a 100*100*3mm as columns, and 50*50*2 mm steel square sections for the purlines, and reinforced polycarbonate plastic panels (8 mm thick, transparent, compressed, and in the colors chosen by the supervision committee, with all accessories of the supporting structures Which connects the reinforced plastic panels to the bridge structure. As for the stairwells, they are implemented from high-strength iron sections connected to a layer of plastic panels, according to international specifications All works should be done according to the instructions of the supervising engineer. <u>All needed works to complete the job should be included within the cost.</u>	m ²	150		0
20	CNC for the Bridge and the Stairs Sides Preparing materials and equipment and covering the bridge with CNC panels made of 4 mm thick iron according to specific pattern and according to the colors chosen by the supervision committee and everything required by the paragraph including the price of painting (three layers of primer, epoxy and a final layer) and with Jotun paints. -Price include Two stell hollow pipe (10x5cm, 2mm) top and bottom of the CNC , including welding and all required work. All works should be done according to the instructions of the supervising engineer. <u>All needed works to complete the job should be included within the cost.</u>	m ²	150		0
The Total IQD					0