

Rehabilitation of Kunrovi PHCC Sinjar, Ninawa, Iraq Project Name: NWA091 TECHNICAL SPECIFICATION AND BILL OF QUANTITIES					
1	General Specification				
2	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				
3	The contractor must provide samples, catalogues for testing / inspection and approval by the site engineer.				
4	Contractor must pay the cost for samples including any laboratory tests, both inside and outside the country as required.				
5	The price of works includes all job requirements as per Iraq's standard specification.				
6	The contractor must provide PPE for all laborer's, personnel, engineers and possible visitors to the site.				
NO.	ITEM	UNIT	QTY	Cost IQD/ Unit	Total cost IQD
A Civil work					
1	Center site cleaning and preparation: Supply of materials, tools, machineries and manpower for site preparation. The work includes : 1-Clearing, stripping and levelling of the site, internal and external of the center. 2-Removing undesired plants and other natural vegetation. 3-Removing undesired furniture and transported it to the to any location instructed to. 4-Dumping of all the debris and rubble to a site approved by the local authorities. All needed work to complete the job will be included within the price.	L.S	1		
2	Crushed aggregate : Supply and provide crushed aggregate to be placed on the access door of the PHC, work include leveling and compacting, all work should be done according to supervisor engineer	m3	24		
3	Gypsum plastering with crack repairing: Supply of all necessary materials, tools and manpower to remove the damaged gypsum plastering of walls & ceiling and plastering with new gypsum plastering in 2 layers minimum thickness 20mm.The work includes repairing of wall cracks by removing the damaged gypsum plastering 25cm at each side of the crack, then filling the cracks with cement mortar 1:3 and using SBR at a rate of 50gr per m2 , later putting a layer of plastic mesh on the area under the gypsum plastering. All needed works to complete the job, will be included within the price.	m²	20		
4	Emulsion painting (internal): Supply of materials, tools, and manpower to paint the interior walls and ceilings, with 3 layers of emulsion paint. The job includes cleaning the walls and ceilings, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job should be included within the price.	m²	40		
5	Plastic painting (external): Supply of materials, tools and manpower to paint the exterior walls and fence, with three layers of plastic (silicon water proof) paint. The job includes cleaning the walls, removing the dirt and dust, repairing all the cracks and filling all the holes before painting. All needed works to complete the job should be included within the cost.	m²	1,000		
6	Room title board: Supply of materials and manpower to install room title name made of plastic sheet size 15x25 cm, using screws to fix. All needed work to complete the job will be included within the price.	No.	9		
7	Concrete Ramp : Supply of materials, tools and manpower to cast concrete ramp for persons with disabilities dimensions (L X Width :1.2 x H m), according to the specification, the slop of ramp between (1:12 -1:20 max),the shape of ramp on L or U with work landing.The work includes steps as below: 1- build the sides of ramp by solid blocks (40x20x15 cm) to support the ramp thickness of wall 20cm with cement plastering 20mm for external fases. 2- backfilling the space between the sides wall, using subbase materials from natural sources free from clay, silt, or any or organic materials. Backfilling material shall be applied on layers of (20-25) cm thickness, watered, and compacted. 3- casting (10cm) concrete with BRC(200x200x5mm) using sulphate resistant cement for (C25MPa) concrete. 4- install steel handrail for staircases, using steel tube squaer section (2*2) inch thickness 2mm as frame the internal tube steel squer (1*1) inch@18cm thickness 2mm with column squaer section 3 inch @ first-End or @ 5m thickness 2mm or according to the approved sample. The price includes anti rust and three layers of oil painting from two side,in case the ramp supported to wall from one side using Steel Stair Handrail Hand Support Railing-pipe Round dimeter 6 cm thickness 2 mm galvanized steel ,non-slip,the work include fixing on wall by brackets and screws each 1.2 m. The price includes anti rust and three layers of oil painting with 3 layers of oil replase steel handrial.All needed works to complete the job, will be included within the price.	M.L	6		
C Electricity Works					
1	LV Power Cable 4x16 mm² (Power connection line): Supply, install, test and lay 1.0 kV grade PVC insulated sheath-un-Armored copper cable. laid in side PVC pipe and existing concrete manholes, The price includes supplying, installing, connecting, laying, drilling & cutting (concrete wall if required) and commissioning include (cable termination with Cu lugs at both end) to complete works as required.	M.L	80		
2	Fuel Tank with Base: Supplying and installing Galvanized steel fuel tank, (4 mm thickness steel) Rectangular shape capacity of 3,000L, with the following requirement: a) steel base made of iron angles 75*75*6mm., with anti rust paint and three layers of oil paint. b) gate valves, fuel filters, ventilation. c) G.I. pipes dia 20mm with fittings. d) level monitor (oil proof). The price shall includes fittings, necessary accessories and all needed works to complete the job.	No.	1		

3	Transformer 11/0.4KV capacity 100kVA , Repairing: Supply and install all accessories for oil type hermetically sealed transformer, with the following specifications: 100kVA, 3-PHASE, Temp Rise 40/45°, Isolation A, Type Outdoor, Service Continue, Frequency 50Hz, with (Buchlose, Tap changer, relay), earthing system for both Neutral point and the frame of transformer using copper cable 1cx 50mm² with 10m length, and two earth rods (1.5m) earth to be connecting from both sides of transformer with all necessary accessories clamps, glands, nuts and bolts. connect set link fuses with lightning arrester and all suspending accessories, supply and connect with each transformer Electrical Metal panel Board consist with One MCCB 100A with all connection accessories, board connect with low side of transformer throw copper cables 1cx 150mm². other side connect with overhead line through Aluminum –Copper clamps, the support for transformer set galvanizes bracket (210cm) L Channel type with 80cm U channel type with all accessories of installation, connecting H.T side of transformer with link fuses using ACC wire 50mm², and connect Cutout fuse side with 120/20 overhead lines using Aluminum –Aluminum clamps. All the electrical work will be completed under the instruction and supervision of the committee. All work should be according to the Iraqi technical specification for transformers D26. All the works will be directed by instruction of supervisor engineer.	No.	1	
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4	ASCR Wire (Aluminum) 120mm ² : Supply, test and installation ASCR Wire (Aluminum) 120mm ² and according specifications. All the works will be directed by instruction of supervisor engineer.	m.l	750		
5	HT galvanized Electrical Tubular 11m: Supply Install test H.T galvanized Electrical tubular poles 11m Height ST 52 type with thickness 5.5mm, the work including excavation for pole foundation (50cm *50cm*180cm) concreting foundation dimension form work concert (40cm ,40cm ,210cm) with concrete design mixing 4:2:1 cover all concert foundation with Asphalt Paint (flunkout), and to be backfill space between pole foundation and excavated area with a suitable backfill soil with very good compaction, the price include all the works will be directed by instruction of supervisor engineer.	No.	5		
6	HT galvanized Electrical Tubular 11m (Bottom section Length x outside diameter (mm) 4750 x 323.9) according to (D-45 Technical specification of MOE-2022): Supply Install test H.T galvanized Electrical tubular poles 11m Height ST 52 type with thickens 5.5mm (D-45 Technical specification of MOE-2022), the work including excavation for pole foundation (50cm *50cm*180cm) concreting foundation dimension form work concert (40cm ,40cm ,210cm) with concrete design mixing 4:2:1 cover all concert foundation with Asphalt Paint (flunkout), and to be backfill space between pole foundation and excavated area with a suitable backfill soil with very good compaction, all the works will be directed by instruction of supervisor engineer.	No.	2		
7	Galvanized steel channel cross arm: Supply, install and test 140-120cm galvanized Channel bracket with clamps, glands, nuts and bolt , and all necessary connection and accessories needed. all the works will be directed by instruction of supervisor engineer.	No.	10		
8	Pin Insulator 11KV with Spindle: Supply, install and test Pin Insulator 11KV with Spindle, and all necessary connection and accessories needed, all the works will be directed by instruction of supervisor engineer.	No.	35		
9	Disc Insulator 11KV: Supply Disc Insulator 11KV with complete accessories According to specifications, all the works will be directed by instruction of supervisor engineer.	No.	24		
10	Stay rod: Supply, test and installation stay rod, and according the specifications. All the works will be directed by instruction of supervisor engineer.	No.	2		
11	kilowatt hour (kWh)meter: Supply and install new electricity kilowatt meter according to DOE specifications.	No.	1		
12	Electricity Connections fees: provide connection fees for electricity to DOE.	L.S	1		
13	Renewable of transformer license : vendor is responsible to pay any cost to renewable transformer papers	L.S	1		
14	Split Unit Air-Conditioning (3 Ton 1ph): Supply, install, fixing, connect, test and commissioning vertical type Split unit air-conditioning (Cool & Heat). The price include supply & installation of cable 3*4mm ² also switch 45 A for single phase AC units and 4X6mm ² with 3MCB 32 Amp for 3 phase AC units. Also the price include installation of the outdoor units on the roof of building or installed suspended with wall by special iron base with all accessories of the building with base vibration absorber height more than 4cm for outdoor units, protection cage, the devices also include all accessories with all extra copper pipes connections through the 3 inch PVC sleeve pipe also extra refrigerant gas, cable tray, the network condensing 1 inch PVC pipe an must be connected to the nearest floor drain. With all accessories needed, as well as all needed works to complete the job entirely.	No.	1		
	Curtain: Supply and install windows blinds (curtains) with all needed to complete work from good origin and good type.	m ²	26		
Grand Total IQD					