

PALESTINIAN WATER AUTHORITY



United Nation Development Program

**Emergency Water Supply and Rehabilitation Programme
PAL 10-00052737**

RAFAH TAL EL-SULTAN AREA PROPOSED WATER NETWORK

Bill of Quantities

**Center for Engineering and Planning (CEP)
&
Engineering & Management and Planning (EMCC)**

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SUPPLY OF PIPES AND FITTINGS FOR PIPE NETWORK

Item	Description	Unit	Qty.	Unit Price (US\$)	Total (US\$)
	<p>Note:</p> <ul style="list-style-type: none"> • <i>The Contractor shall when pricing this Bill take into consideration, include and allow for costs or expenses of all requirements stipulated in General Conditions, Particular (Technical) Specifications and other documents of this bill.</i> • <i>The exact lengths of the required pipes, the exact number of the required valves or other fittings and the exact quantities of concrete will be determined during the implementation of the Works.</i> • <i>Price should account for cost of all associated works including trench excavation and all earthworks including all kinds of soil and rock excavation, asphalt cutting, spreading surplus soil, backfilling, hydrostatic test, cleaning and disinfection of pipeline.</i> • <i>Pipe, fittings, valves, hydrants, and other water main accessories shall be loaded, transported, unloaded, stored, handled, and installed by methods and in a manner that will insure their final installation in a sound and undamaged condition conforming in all respects to specified requirements.</i> • <i>Connections with shallow pipes should be protected according to the specifications and supervisory engineer's structure.</i> • <i>Minimum depth for pipes should not be less than 130 cm</i> • <i>The price should account also the reinstatement of the roads (filling base course, asphalt, interlock tiles ...etc) after installing the pipes and all other required works as described in Specifications and as shown in Drawings and directed by the Engineer.</i> • <i>The price should account also constructing and fixing Thrust blocks as shown in specifications and drawings and as directed by supervisory engineer.</i> • <i>The price should account also the connection of existing pipes to the new pipes with all needed fittings and supports.</i> • <i>The price includes all fittings and supports to finish all works for all items.</i> • <i>Price should include minimum amount of 15% labour content.</i> 				
1.	Supply to 14" dia. X 3/16" thickness steel pipes	LM	110		

Item	Description	Unit	Qty.	Unit Price (US\$)	Total (US\$)
	coated externally with primer and two layers of polyethylene coating and internal cement mortar lining including the required elbows and fittings as described in Specifications and as shown in Drawings and directed by the Engineer				
2	Ditto, but 12" dia. X 3/16" thickness steel pipes	LM	50		
3	Supply and install UPVC 315mm pipes PN 12 bar including the required elbows and fittings as described in Specifications and as shown in Drawings and directed by the Engineer.	LM	600		
4.	Supply to 10" dia. X 3/16" thickness steel pipes coated externally with primer and two layers of polyethylene coating and internal cement mortar lining including the required elbows and fittings as described in Specifications and as shown in Drawings and directed by the Engineer	LM	5		
5	Supply and fix 200 mm UPVC pipe PN 12 bar including the required elbows and fittings as described in Specifications and as shown in Drawings and directed by the Engineer.	LM	750		
6	Supply and fix 10" gate valve Rafael type or equivalent including all the required pipes and fittings for washouts as shown on the Drawings and described in the Specifications or directed by the Engineer (Detail No. MH8)	NO	2		
7	Ditto, but 12" diameter gate valve (Detail No. MH4)	NO	1		
8	Ditto, but 8" diameter gate valve (Detail No. MH1)	NO	5		
9	Ditto, but 8" diameter gate valve including flanged reducer 14"*8" (Detail No. MH10)	NO	1		
10	Supply and install steel tees all flanges with external polyethylene coating and internal cement mortar lining which has two branches 14" diameter and the third branch 8" and reducer required to connect with steel pipe. (Detail No.D03)	NO	1		
11	Ditto, but two branches 12" diameter and the third branch 8" diameter. The price shall include any flange socket required to connect with UPVC pipe. (Detail No. D01)	NO	3		
12	Supply and install steel tee with all flanges which has three branches 10" diameter as shown on the Drawings and described in the Specifications or directed by the Engineer. The price shall include the flanged coupling required . (Detail No.D08)	NO	3		

Item	Description	Unit	Qty.	Unit Price (US\$)	Total (US\$)
13	Supply and install steel tee with all flanges which has three branches 10" diameter as shown on the Drawings and described in the Specifications or directed by the Engineer. The price shall include the flanged coupling, flanged socket and reducer required. (Detail No.D07).	NO	1		
14	Ditto, but two branches 10" diameter and the third branch 8" diameter. The price shall include the flanged coupling and flanged socket (Detail No.D06)	NO	1		
15	Supply and install UPVC tee with all flanges which has all branches 8" diameter. The price shall include any reducer required with all accessories for connect steel pipe (Detail No. D02).	NO	1		
16	Ditto, but two branches 8" diameter and the third branch 6" diameter. (Detail No.D04)	NO	1		
17	Supply and fix UPVC tee with all flanges which has three branches 8" diameter as shown on the Drawings and described in the Specifications or directed by the Engineer. (Detail No.D05)	NO	4		
18	Supply and fix end cap for 8" line end as shown on the Drawings and described in the Specifications or directed by the Engineer.	NO	3		
19	Supply and install 120cm internal diameter precast circular reinforced concrete water manholes complete with B300 cast in place reinforced concrete base, cast iron cover (25 tons capacity), frame, rings, and special joint required to fix the Water pipes to the manhole. The item also includes B300 benching, shuttering, inside cast-iron steps each step 30 cm maximum and safety measures, excavation in any type of soil to any depth, plain concrete, two external bitumen coating, and backfilling in layers 25 cm maximum using suitable material with watering, and compaction. The price includes repairing the damage of the existing asphalt layers, base course layers, curb stone, side walks tiles to the original condition. as described in Specifications and as shown in Drawings and directed by the Engineer	NO	9		
20	<i>As provisional item</i> , connect the collection pipe from the wells with the inlet pipe of Tal Sultan Tank. Works shall include all necessary joining and connection along with any associated fittings as described in Specifications and as shown in	LUMP SUM	1		

Item	Description	Unit	Qty.	Unit Price (US\$)	Total (US\$)
	Drawings and directed by the Engineer.				
B1	SUM \$				

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Summary:

Item	Description	Total (US\$)
1.	Total for Item # B1	
	Total (US\$)	
	Vat (0%)	
	Grand Total (US\$)	

Grand Total (in letters):-----

Contractor's Name:-----

Signature and Stamp:-----

Date:-----