



**UNITED NATIONS DEVELOPMENT PROGRAMME**

**Rubble Removal from Gaza Strip**

**ITB-0000144080: Package # 4: Site Preparation and Crushing of Concrete Rubble**

## **Bill of Quantities**

Item No.	Description	Unit	Qty	Unit Price-US\$	Total-US\$
<b>Package # 4: Site Preparation and Crushing of Concrete Rubble</b>					
	<p>Notes:</p> <p>The unit rate shall include the following:</p> <ul style="list-style-type: none"> <li>- All safety measures for the crushing site and labors according to contract document and make sure proper training for all staff, insurance policy and coverage will include all risks emerging from UXOs and other hazards connected with rubble removal. All according to supervisor Engineer approval.</li> <li>- All quantities are estimated according to the anticipated weights of materials of damaged facilities/buildings at the date of bid advertisement. In case of any changes in quantities (increase or decrease), same rates quoted will be</li> <li>- Supply the sites with internet, continuous electrical source on daily basis. Payments for electrical fees and/or generator's fuel and oil and maintenance are the responsibility of the contractor.</li> <li>- All works should be done according to specifications, contract conditions and instructions as directed by the UNDP Engineer.</li> <li>- Handling of UXOs removal which needs special dealing, special transportation and disposal to be done in close coordination with UNMAS as well as local authorities.</li> <li>- All crushed materials will be uploaded in trucks and sent to the nearby dump site for weighing the crushed material in full coordination with the supervisor engineer. The contractor has to submit the weight receipt for each crushed concrete truck in order to be payable under the contract. The unit price shall include all costs for transportation to its final destination and relevant costs in connection with weighing crushed materials.</li> <li>- Any fees, costs and transportation for disposal of non-concrete elements in the main dump site.</li> <li>- Temporary access roads within the site and to the main road that can withstand the heavy trucks movement. Unit price shall include all needed materials and equipment to maintain safe access to trucks.</li> <li>- All costs connected with water tank or any other way to secure source of water to be used at the site for watering all crushing activities, sorting and uploading to minimize dust</li> <li>- Supply and install temporary steel bars sieve of net opening 8cm before starting any crushing activities.</li> <li>- Only approved crushed concrete quantities will be considered for payment.</li> </ul> <p>Crusher's Minimum Requirements</p> <ul style="list-style-type: none"> <li>•Min. 150 ton/hour with magnet system</li> <li>•Diesel Engine</li> <li>•Fully adjustable hydraulically controlled jaw</li> <li>•Tremendous power and speed of crushing</li> <li>•Vibrating feeder automatically controls the flow of material to the crusher.</li> <li>•Reverse crushing action to relieve blockage.</li> <li>•Availability of crushing in different sizes from 10 mm up to 80 mm.</li> <li>•Magnetic tape for sorting steel parts.</li> </ul>				

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<b>Package # 4: Site Preparation and Crushing of Concrete Rubble</b>					
1	<p>In Tons, Crushing concrete debris transported to the site into different sizes (from 10 to 80 mm). The price includes transportation of raw (basic) material from any location inside the crushing into the crushers, crushing concrete material to the required sizes, sorting, mixing, and transporting the mixed crushed materials to places inside the site. All works should be executed as per the directions of supervisor engineer, special conditions, specifications, and drawings. The price also includes sorting of non-concrete materials (generated from crushing process) such as steel, plastic or other materials and storing them in special places inside dumping site</p> <p>The price includes spreading the entire site inclusive of dump and crushing sites with water on periodic basis to minimize the dust.</p> <p>The price also includes sieving the non crushed concrete imported from demolishing sites before crushing stage using temporary steel bars sieve of net opening 8cm .</p>	ton	50000		-
2	<p>Conducting testing Programme to identify technical specifications of crushed material. Samples of crushed materials should be tested at least in two recognized laboratories. All technical specifications of crushed materials should be tested as per tests requirement to be used as aggregate for concrete mixes and roads. At least 6 Samples will be used by the laboratories for testing purposes. Recommendation of each lab should be also included in testing results/Report.</p> <p>The unit price includes also conducting a workshop for all project stakeholders including NGOs, UNDP Partners, Private sector, universities, local communities, etc. the workshop will discuss testing results and reuse applications. Workshop will be conducted in a suitable place (to be selected jointly with UNDP) for at least 200 people from all the Gaza Strip.</p>	No	1		-
3	<p>Prepare crushing area and material storage places as shown in the attached drawings and according to the engineer instructions. The work includes: leveling, cut , fill and compacting subgrade to 95% , supplying and installing Polyethylene sheets 0.12 mm thick that will be topped by 25 cm crushed materials. The layer of crushed materials will be spread evenly in two layers: 12.5 cm each including watering, compacting to 95%, and testing.</p>	m2	15000		-
4	<p>Provisional Item: Stock piling of crushed concrete rubble inside the crushing site. Stockpile height should be between 6-8 meters.</p>	hours	50		-

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<b>Item No.</b>	<b>Description</b>	<b>Total-USD</b>
1	Total of Item 1	-
2	Total of Item 2	-
3	Total of Item 3	-
4	Total of Item 4	-
	<b>Grand Total USD</b>	-
	<b>Grand Total (in letters):</b>	
	<b>Contractor's Name:</b>	
	<b>Signature and Stamp:</b>	
	<b>Date:</b>	