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REQUEST FOR EXPRESSIONS OF INTEREST PRE-QUALIFICATION OF CONSTRUCTION CONTRACTORS

Project Description:	Construction of organic waste composting stations in three locations: (1) Anfeh, Koura District (2) Ansariyeh, Saida District (3) Ras el Matn, Matn District
Purpose of this EOI:	Pre-qualification of Construction Contractors
Project:	Diverting Waste by Encouraging Reuse and Recycling (DAWERR)
Funding Agency:	U.S. Agency for International Development (USAID Lebanon)
Deadline for submitting questions:	July 31, 2023
Deadline for submitting expressions of interest:	August 14, 2023
Reference Number:	DAWERR-2023-EOI-3

A. Purpose of this Request for EOIs

ECODIT Beirut LLC (*henceforth ECODIT*) is soliciting expressions of interest and submission of pre-qualification data (*Phase 1*) from qualified Bidders/Construction Contractors for the construction of an organic waste composting station, including land preparation works, in (1) Anfeh, Koura District, (2) Ansariyeh, Saida District, (3) Ras el Matn, Matn District - see Attachment A. A Technical Evaluation Committee (TEC) formed by ECODIT will evaluate all Expressions of Interest (EOIs) received and short-list up to five bidders/contractors based on the eligibility for pre-qualification and the evaluation factors described in this request for EOIs. Subsequently, for each town, ECODIT will issue a separate Request for Proposal (RFP; *Phase 2*) to all short-listed contractors, inviting them to submit detailed quotes in response to final tender documents for that town. ECODIT may issue the three RFPs for the construction works in the three towns in a staggered fashion (i.e., spread over time). For each town, the TEC will evaluate the offers received based on the evaluation criteria that will be listed in the RFP and select one contractor for the construction works for that town. All short-listed contractors will be encouraged to bid on all three RFPs. ECODIT may award more than one construction contract to the same contractor -for example, two construction contracts for two of the three towns, or three construction contracts for the three towns.

B. Background

ECODIT is implementing the USAID Diverting Waste by Encouraging Reuse and Recycling (DAWERR) Activity (2020-2025), which aims to improve the social, environmental and economic well-being of the Lebanese citizens through establishing sustainable and replicable integrated solid waste diversion and valorization solutions in rural areas of Lebanon.

DAWERR has the following three objectives:

1. Build the capacity and commitment of municipalities to provide improved SWM services either directly or indirectly;
2. Empower communities to sort at the source and participate actively in various stages of the Recycling Value Chains (RVCs); and
3. Develop successful business models that create green economic opportunities and generate net incomes along the value chains.

DAWERR is developing sustainable composting value chains for organic waste and strengthening existing RVCs for recyclable materials in four pilot municipalities, and will support replication of the successful pilots in additional municipalities across Lebanon. In addition, DAWERR will develop integrated solid waste management solutions in three unions or clusters of municipalities.

C. Scope of Work for the Construction Works

This Request for Expressions of Interest, and the subsequent RFP, concern the construction works for the three composting stations in Anfeh, Ansariyeh and Ras el Matn. DAWERR will support Anfeh, Ansariyeh and Ras el Matn Municipalities and their local community to develop sustainable composting value chain for organic waste, including source separation, collection, and composting of organic waste through the construction of small-scale, low-tech, low-cost composting stations, creating local demand for the compost produced for agricultural, landscaping, or other uses as soil conditioner/fertilizer supplement.

In Anfeh and Ras el Matn, DAWERR is planning to install Container Composters that will be fabricated separately by another contractor, who will bring the container composters to the site and install them after the construction works have been completed. For Ansariyeh, DAWERR is planning to build composting bunkers. Exhibit 1 outlines the scopes of works (SOW) for the municipality, the construction contractors, and other DAWERR contractors to complete the construction of the composting station in each town. The Construction Contractor will be expected to take possession of the site and begin construction, noting that the municipality and other DAWERR contractors will contribute to construction works as detailed in Exhibit 1.

EXHIBIT 1. INDICATIVE CONSTRUCTION WORKS TO BE COMPLETED BY THE CONSTRUCTION CONTRACTOR AND OTHER ENTITIES IN EACH TOWN

<div style="text-align: center;">Construction SOW</div> <hr/> <div style="text-align: center;">Implementing Entity</div>	<div style="text-align: center;">Anfeh Composting Station</div>	<div style="text-align: center;">Ras el Matn Composting Station</div>	<div style="text-align: center;">Ansariyeh Composting Station</div>
<p>Municipality</p>	<ul style="list-style-type: none"> • Topographic surveys during the project implementation, where needed. • Planting trees all around the project’s fence 	<ul style="list-style-type: none"> • Topographic surveys during the project implementation, where needed. • Establishing the access road leading to the project's site. • Planting trees all around the project's fence 	<ul style="list-style-type: none"> • The topographic surveys during the project implementation, when needed. • Rehabilitation of the access road leading to the project's site. • The construction of cyclopean concrete walls for the existing canal adjacent to the site. • Planting trees all around the project's fence.
<p>Construction Contractor</p>	<ul style="list-style-type: none"> • Excavation, earth works and land preparation including base coarse layer under slabs on grade and under asphalted areas, excavation of the building’s foundations, etc. • Construction of cyclopean concrete walls for the project’s fence. • Reinforced concrete works including blinding concrete, foundations, tie beams, columns, walls, channels and pits, slab on grade, slabs etc. • Steel works including the construction of a steel hangar, Blocks A, steel fence, steel doors, the project’s gate, etc. • Finishing for the Block A including partition – plastering – painting - tiling – doors- windows, etc. 	<ul style="list-style-type: none"> • Excavation, earth works and land preparation including base coarse layer under slabs on grade and under asphalted areas, excavation of the building’s foundations, etc. • Construction of cyclopean concrete walls for the project's fence. • Reinforced concrete works including blinding concrete, foundations, tie beams, columns, walls, channels and pits, slab on grade, slabs etc. • Steel works including the construction of a steel hangar, Blocks A, steel fence, steel doors, the project’s gate, etc. • Finishing for Block A and B including partition - plastering - painting - tiling – doors- windows, etc. 	<ul style="list-style-type: none"> • The earth works and land's preparation including excavation works, base coarse layer, etc. • The reinforced concrete works of blocks A & B including blinding concrete, foundations, tie beams, channels and pits, slab on grade, columns, retaining walls, cover slabs, etc. • The steel works including: the construction of Block A steel hangar, The steel fence, the project's gates, etc. • Finishing for Block A, B including partition, plastering, painting, waterproofing, doors, windows, tiling, etc.

Construction SOW Implementing Entity	Anfeh Composting Station	Ras el Matn Composting Station	Ansariyeh Composting Station
	<ul style="list-style-type: none"> • Mechanical installation including drainage and water supply networks, air conditioning, firefighting, sanitary fixtures for the reception's toilet, etc. • Electrical installation including power, lighting and low current, networks, lightening, earthing, panel boards, etc. • Landscaping works including the asphaltting of the external yards, etc. 	<ul style="list-style-type: none"> • Supply and installation of a prefabricated unit dedicated for the reception area with all needed mechanical and electrical installation. • Mechanical installation including drainage and water supply networks, air conditioning, firefighting. • Electrical installation including power, lighting and low current, networks, lightening, earthing, panel boards, etc. • Landscaping works including the asphaltting of the external yards, etc. 	<ul style="list-style-type: none"> • Electrical installation including power, lighting and low current, networks, earthing, etc. • Mechanical installation including drainage and water supply networks, sanitary fixtures for the reception's toilet, etc. • Composting units' mechanical and electrical networks. • Landscaping works including the asphaltting of the external yards, etc.
Other DAWERR Contractors	<ul style="list-style-type: none"> • Fabrication (offsite) and installation (onsite) of three container composter 40' with all related equipment • Installation of one screening machine to screen the compost produced. • Installation of a wastewater treatment unit. • Installation of a generator for the electrical power supply. • Installation of a Solar Photovoltaic (PV) system for the Electrical power supply. 	<ul style="list-style-type: none"> • Fabrication (offsite) and installation (onsite) of three container composter 40' with all related equipment • Installation of one screening machine to screen the compost produced. • Installation of a wastewater treatment unit • Installation of a generator for the electrical power supply. • Installation of a Solar Photovoltaic (PV) system for the Electrical power supply 	<ul style="list-style-type: none"> • Installation of one screening machine to screen the compost produced. • Installation of a wastewater treatment unit • Installation of a generator for the electrical power supply. • Installation of a Solar Photovoltaic (PV) system for the Electrical power supply.

Total estimated cost for the construction contractor’s SOW for the composting station in one town is in the range of \$170,000- \$315,000. Actual costs will depend on the town and the final design and specs for the works to be completed at that town. In the RFP for each town, ECODIT will provide more details on the scope of work and needed submissions (work schedule, detailed quotes, etc.) from the short-listed contractors. ECODIT will arrange site visits by interested prospective bidders.

D. Eligibility to Pre-Qualify

To be eligible to submit an EOI in response to this Request for EOIs and be considered for pre-qualification, a construction contractor must:

1. Be classified in the second category and above of buildings and public works classification at the Ministry of Public Works and Transport¹, and provide a proof of such classification;
2. Be registered in the Commercial Registry with a valid registration, and provide a copy of registration showing validity through September 30, 2023 or beyond;
3. Be registered with the Directorate of Value Added Tax (VAT) and provide a copy of the certificate of registration;
4. Operate a non-bankrupt business and provide (1) a non-bankruptcy statement issued by the competent bankruptcy court, and (2) a statement of the Bidder that he/she is not under judicial liquidation, issued by the Commercial Court; both statements should be dated no more than six months before the deadline for submitting the EOI;
5. Have a Professional Liability Insurance Policy with coverage for at least \$500,000 for any one claim and \$1,000,000 in the aggregate and provide a copy of it, or provide a signed Commitment letter to obtain such insurance prior to contract execution;
6. Provide a signed Commitment letter to obtain a Contractor's All Risk (CAR) insurance policy, Contractor General Liability Insurance policy, Workers' Compensation Insurance (all-in-one or separate policies) prior to contract execution ; and
7. Have implemented at least one similar project worth at least \$100,000 successfully in the past three years and provide relevant supporting documentation.

E. Instructions for Preparing and Submitting Questions and Expressions of Interest

Questions

All interested bidders are encouraged to submit questions by email to the attention of Mrs. Carla Hammoud (chammoud@dawerr.org) with a copy to Mr. Jad Sakr (jsakr@dawerr.org) by the deadline included on page one and Section G of this document. ECODIT will compile all questions and provide answers in an updated Request for EOIs that will also be posted on Daleel Madani and ECODIT website as per timeline included in Section G.

Expressions of Interest

To be considered for the short list, interested bidders must provide the information requested in Section D (Eligibility to Pre-Qualify) and in Attachment A, and email the information together with a cover letter, to the attention of Mrs. Carla Hammoud (chammoud@dawerr.org) with a copy to Mr. Jad Sakr (jsakr@dawerr.org) by the deadline included on page 1 and Section G of this

¹ تصنيف فئة ثانية وما فوق من تصنيف مباني وأشغال عامة

document, and submit **soft copies on a flash drive** at ECODIT office, to the attention of Mrs. Carla Hammoud, at the following address:

Mrs. Carla Hammoud
Compliance and Grants Specialist
USAID-funded DAWERR Activity
ECODIT Beirut LLC
Sarkis Building, 6th floor
Zalka, Lebanon

The cover letter shall be signed by a person duly authorized to sign on behalf of the contractor in which the contractor expresses its desire to participate in the tender, acknowledges that he/she has studied the documents of the tender file, and expresses its willingness to adhere precisely and faithfully to all its conditions.

Expressions of Interest must be received at the above address by no later **than Monday August 14, 2023, no later than 5:00 PM Beirut time**. Expressions of Interest or any supporting pre-qualifications documents received after this deadline will not be accepted. No phone or email inquiries about this Request for EOIs will be accepted. ECODIT will post this Request for EOIs and future updates on the Daleel Madani website under the Call for Tenders page.

All Expressions of Interest submitted by Bidders in response to this Request for EOIs will be treated as confidential documents, but any hard copies will not be returned. Each Bidder will bear all costs and expenses associated with the preparation and submittal of the pre-qualification package, including the provision of any Supplemental Information that may be requested. If a Bidder knowingly makes a misrepresentation in submitting information to ECODIT, such misrepresentation may be sufficient ground for denying prequalification to that Bidder, rescinding the Bidder's prequalification, rejecting a Bidder or rescinding an award of a Subcontract or terminating the Subcontract itself.

F. Evaluation Factors for Pre-Qualifying Bidders

The TEC will evaluate all EOIs received against the factors listed in the table below, which mirror the instructions for preparing expressions of interest contained in Attachment A. The TEC then will rank all EOIs according to the total score received and short list the top-ranking bidders that receive a total technical score of 70 or more.

EOI Evaluation Factors (based on Attachment A)	Score (points)
Overall capabilities and qualifications of the Bidder	20
Project references and past performance	15
Key personnel	15
Method Statement	20
Unit Price Breakdown	30
Total Score	100 points

G. Conflict of Interest

ECODIT reserves the right to investigate an application due to any real or perceived conflict of interest. In the event that ECODIT determines that conflict of interest exists, ECODIT may disqualify an application or terminate the subcontract.

Definition of conflict of interest:

- (1) the contractor is unable or potentially unable to render impartial assistance or advice;
- (2) the contractor's objectivity in performing the contract is or might be impaired;
- (3) the contractor may receive an unfair competitive advantage;
- (4) the contractor may have a financial or other personal interest which would or potentially would impair his/her objectivity and/or from which he/she would improperly benefit.

Further discussion of OCIs may be found in [FAR 9.5, Organizational and Consultant Conflicts of Interest](#).

H. Procurement Timeline

ECODIT will issue the RFP for given town only after it receives the necessary permits and approvals for the construction works envisioned in that town -i.e., environmental approvals, establishment permit, and construction permit. ECODIT has already applied for the environmental approvals and for the establishment permit for those projects, which once issued ECODIT will apply for the construction permits. ECODIT is also in the process of finalizing the design and tender documents for the construction works of Anfeh and Ras El Matn composting station.

Subject to obtaining all approvals/permits and finalizing all necessary documents, the tentative timeline for the procurement of services for the construction of three organic waste composting stations, is approximately as follows:

July 24, 2023	Request for EOIs issued and advertised on Daleel Madan and ECODIT Website
July 31, 2023	Deadline for submitting Questions
Aug 7, 2023	Updated Request for EOIs, including Questions and Answers, posted on Daleel Madani and ECODIT website
Aug 14, 2023	Deadline for receiving EOIs from interested bidders (no later than 5:00 pm Beirut time)
Aug 24, 2023	Short-listed bidders selected, and notifications sent by email to bidders that were not short listed

Sep 29, 2023*	Anfeh RFP sent to short-listed bidders
Oct 10, 2023*	Deadline for short-listed bidders to submit detailed Proposals for Anfeh
Oct 20, 2023*	Selection of Construction Contractor and issuing subcontract for the construction of Anfeh organic waste composting station (to be implemented over a 4-month period)

**Tentative dates*

I. Disclaimer

ECODIT reserves the right to change or cancel the procurement at any time during the EOI and/or follow-on solicitation process. ECODIT also reserves the right to require compliance with additional conditions when issuing the RFP. Responding to this Request for EOIs does not automatically guarantee receipt of the solicitation documents when issued. Invitations to bid or requests for quotes and any subsequent purchase order or contract will be issued in accordance with the rules and procedures of USAID and ECODIT.

Notes:

- (1) ECODIT Beirut LLC is exempt from paying VAT under license number EFF/2021/64 issued by the Ministry of Finance on 06/29/2020.*
- (2) During implementation and following every payment request submitted by the construction contractor, ECODIT will review and issue a payment verification report. Based on the payment verification report, and unless the Contractor can provide a performance bond and a retention bond, ECODIT will pay to the construction contractor the amount invoiced and approved after deducting 15% as retention. ECODIT will release two-thirds of the retention (or 10% of the total amounts invoiced and approved) upon completion of works and keep the remaining one-third (or 5% of the total amounts invoiced and approved) as financial guarantee during the defect liability period (12 months).*

Attachment A
Information to be Provided as Part of Expression of Interest

Contact details

Name of Bidder:

Address:

**Name and position of
person authorized to
negotiate a contract award:**

Telephone number:

Email address:

Please respond to the following:

1. Overall Capabilities and Qualifications of the Bidder

Provide an overview description of the Bidder (1 page), to include at least the following elements:

- Years of operation in Lebanon, the Middle East, or elsewhere;
- Size of firm and resources available, including number of full-time staff, equipment available to implement the scope of work;
- Combined value of projects executed in the past three years;
- General approach to and track record in quality and safety assurance for construction projects implemented in Lebanon, the Middle East, or elsewhere;
- Experience working on US federal or state government clients, including USAID funded projects;
- URL link to your firm’s website; and
- Off-the-shelf corporate brochures and marketing materials, if any.

2. Project References / Past Performance

Provide detailed information on up to five (5) relevant projects undertaken by the Bidder, preferably as the prime contractor, in the last five years that demonstrate experience and track record in implementing similar Projects to the construction works proposed under this Request for EOIs, including projects implemented with USAID funding. For each project reference, provide the following information (1 page max per project):

- Project name;
- Client name;
- Contact person information (*contact person would also serve as a reference*);
- Contract value;
- Contract number;
- Period of performance;
- Place of performance (municipalities, etc.);
- Description of construction works provided.

In addition, please provide a Certificate of Completion (preferable) or equivalent for each project.

3. Key Personnel

Submit the curriculum vitae (CVs, up to two pages each) for up to three Key Personnel (for example, Site Manager, Construction Manager, and Quality Assurance/Quality Control (QA/QC) Manager) that the Bidder intends to propose for implementing the Construction Works in response to the RFPs, if pre-qualified.

4. Method Statement

Please provide a narrative describing an illustrative Method Statement as per the various sections of the below outline. Please provide photos from previous projects implemented by the bidder showing safety measures applied, equipment used, work in progress, etc.

Method Statement Outline

A. Site Access

B. Protection of Other works

C. Health and Safety Plan

D. QA/QC Protocol including implementation method.

E. Workplan

- A tentative timeline for completing the Construction Works detailed in section H below.
- Capability for executing several types of Construction Works in parallel (based on the preliminary design drawings included in Attachment B)

F. Mobilization

- Equipment required on each site
- Staff and Equipment's Productivity
- Materials data sheets

G. Material procurement and storage

H. Construction Works

H.1 Electrical installation

- Scope
- Method for:
 - Power supply installation.
 - Lighting installation.
 - Lightening system.
 - Trenches and manholes.
 - Lightning and earthing.
 - Panel boards.
- Group of labors required.
- Reference documents
- Description of sequence
- Testing
- Machineries and tools
- Safety

H.2 Mechanical installation.

- Scope
- Method for:
 - Drainage and rainwater
 - Water supply
 - Trenches and manholes
 - Air conditioning
 - Firefighting
- Group of labors required.
- Reference documents.
- Testing
- Machineries and tools
- Safety

H.3 Excavation & Earth Works.

- Scope
- Method
- Group of labors required.
- Reference documents
- Machineries and tools
- Safety

H.4 Filling - backfilling & Base coarse

- Scope
- Method for spreading and compacting backfilling and base coarse layers
- Group of labors required.
- Reference documents

- Machineries and tools
- Safety

H.5 Reinforced concrete

- Scope
- Method for:
 - Cleaning the site and removing and disposing of surplus materials to approved dumping area
 - Plain concrete works
 - Reinforcement Concrete Footings
 - Breaking into pipes and Installation of valves, fittings, and accessories
 - Reinforcement Concrete walls and columns
 - Reinforcement Concrete slab on grade and tie beams
 - Reinforcement Concrete slabs, beams
 - Concrete Curing
 - Concrete repairing
 - Water proofing to all concrete surfaces in contact with soil where required
- Group of labors required
- Reference documents
- Testing
- Machineries and tools
- Safety

H.6 Steel Works:

- Scope
- Method for installation of:
 - Steel structure for hangars
 - Steel fence
 - Steel gate
 - Steel doors
- Group of labors required.
- Reference documents
- Testing
- Machineries and tools
- Safety

H.7 Finishing works

- Scope
- Method for:
 - Mansory works.
 - Plastering works
 - Tilling works
 - Waterproofing works.
 - Painting works

- Doors and windows
- Group of labors required.
- Reference documents
- Machineries and tools
- Safety

H.8 Landscaping

- Scope
- Method for:
 - Asphaltting
- Group of labors required.
- Machineries and tools
- Reference documents
- Safety

I. Substantial Completion

J. Handing Over

- Testing & Commissioning including description of minor and major work components.
- Snag list.

5. Breakdown per Unit Cost for Civil and Architectural Works

Please provide realistic and accurate breakdown per unit cost for the civil and architectural items as shown below and in the excel document attached here.

[DAWERR-UNIT PRICES BREAKDOWN](#)

See also Attachments B and C of this document for reference.

Note: Any difference in unit cost proposed by shortlisted bidders at the RFP stage will need to be justified.

CIVIL ITEMS

A Site Construction:

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
A1	<p><u>Sub-Base and Base Courses:</u> Preparation including excavation for fine tuning and compaction to required density of sub-grade layer complete including supplying and placing suitable materials as specified and where required, and compaction to required density, then supplying, distributing, spreading, leveling and compacting to required density aggregate sub-base and base courses, all to be done as specified, shown on the drawings and to the satisfaction of the Engineer. Aggregate base course, 200 mm thick after compaction to required density under slab on grade, and 2 layers of 250mm under foundations, the slabs on grade, and the asphalted areas as shown in the design drawings.</p>									
A1.1	<u>Sub-Base and Base Course layer.</u>	m2	1							

B CONCRETE AND REINFORCED CONCRETE WORKS:

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
B1	<p>Cast-in-place reinforced concrete: Cast in place ready mix reinforced concrete (Type II, 30 MPa on Cylinder) using moderate sulphate resistant cement to ASTM C150, type II, 30 MPa on Cylinder (38 MPa on Cube), complete including formwork of any type and any shape, polyethylene sheet (0.25 mm thick) where required, steel bar reinforcement ratio 90Kg/m3, accessories, construction joints, waterstops to each casting edge if applicable, inserts for openings, sleeves, two cross coats of approved bituminous cold applied waterproofing paint to all concrete surfaces in contact with soil where required, etc., and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.</p>									
B1.2	Foundations, any type (isolated & Strip) and any thickness.	m3	1							
B2	<p>Cast-in-place reinforced concrete: Cast-in-place reinforced concrete (Type II, 30 MPa on Cylinder) ready mix using moderate sulphate resistant cement to ASTM C150, type II, 30 MPa on Cylinder (38 MPa on Cube), complete including formwork of any type and any shape, steel bar reinforcement one layer of T12 @ 20cm both ways, accessories, construction joints, waterstops to each casting edge if applicable, inserts for openings, sleeves, two cross coats of approved bituminous cold applied waterproofing paint to all concrete surfaces in contact with soil where required, etc., and all other related works, all as specified, shown on drawings and to the satisfaction of the Engineer.</p>									
B2.1	Slabs on grade, 150 mm thick.	m2	1							

C Steel Works:

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
C1	<u>Steel Fence works:</u> Providing and installing a fence of galvanized steel mesh, size 5 cm * 5 cm thickness 4 mm, height 1.5 m, fixed and welded on steel columns measuring 6 x 6 cm and connected with a HSS60x30x3 mm from the top and bottom with all the necessary welding and painting for the steel according to the specifications & the engineer's instructions.	L.m.	1							

D ASPHALT

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
D1	<p>Asphalting works including:</p> <ul style="list-style-type: none"> - Curing the compacted mix at least 24 hours. - Prime coating the cured mix in advance to place the new asphalt concrete, - Placing one layer of asphalt concrete (7cm thick loose lift), and Well-compacting the asphalt concrete (5cm thick-compacted to a minimum of 98%). <p>The asphalt concrete shall be protected against traffic during the compaction, and, until the surface temperature of the asphalt concrete is dropped down to 60 Centigrade Celsius. Wearing course of asphalt-concrete (Maximum and Nominal Maximum Aggregate Sizes are 19.05mm and 12.7mm, respectively):</p> <ul style="list-style-type: none"> • Bitumen Grade = 40/50, • Marshall Stability at 60oC >= 950Kg and Flow: 2 - 3.5mm, • Percent Air Voids (Pa) = 3 - 5%, • Percent Voids in the Mineral Aggregate (VMA) > 14, • Percent of Voids Filled with Asphalt (VFA) = 65 – 75, • Optimum Bitumen Content in Total Mix (Pb) = 4.5 – 5.5%, • Bulk Specific Gravity of Compacted Mix (Gmb) >= 2.3gr/cm3, and • Mineral Filler to Bitumen Ratio = 0.8 – 1.2. 									
D1.1	Asphalting the external yard.	m2	1							

Architectural Items

A MASONRY WORKS

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
A1	<p><u>Concrete Masonry Unit:</u> Hollow and/or solid concrete blocks supplied, tested, installed, bedded and jointed with cement sand mortar mix (1:3), complete including all necessary reinforced concrete stiffening columns, tie beams, lintels, jambs and sills, connections between steel columns and masonry walls for masonry, reinforcements, dowels, stainless steel head restraints, mineral wool, sealant, all necessary galvanized steel wire mesh, accessories, steel angles and supports for masonry infills, and all other related works, all as specified, shown on the drawings and approved shop drawings, and to the satisfaction of the Engineer.</p> <p><u>Notes:</u></p> <ul style="list-style-type: none"> - The Contractor shall submit to the Engineer for approval all necessary shop drawings of proposed construction details including all necessary stiffening columns and tie beams for masonry, and including lintel, jambs and sill detail for each opening whether it is shown on drawings or not. - Masonry walls shall comply with 1997 Uniform Building Code requirements as concerns resistance to seismic forces, and shall have at least the descriptions stated in the Technical Specifications and the details shown on the Drawings. - The Contractor shall submit to the Engineer for approval the laboratory test results of the physical properties in compliance with the ASTM C90 or C126 for Hollow or Solid Load-Bearing or Non-Load Bearing Concrete Masonry Units as follows: <p>Hollow or Solid Load-Bearing Minimum net area compressive strength requirements are 6.40 MPa for an individual unit and 7.20 MPa average for three units.</p> <p>Non-Load Bearing Minimum net area compressive strength requirements are 3.40 MPa for an individual unit and 4.20 MPa average for three units.</p>									
A1.1	<u>100 mm thick walls in hollow concrete blocks:</u>	m2	1							
A1.2	<u>200 mm thick walls in hollow concrete blocks:</u>	m2	1							

B FINISHES 1/3

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
B1	<u>Portland Cement Plaster:</u> Prepare surfaces and apply one dash coat (Rasheh) and cement sand plaster to the following surfaces, complete including all necessary wire mesh metal lath, metal corners for the openings of the internal wood doors, angles and accessories for the intersection between the steel column and the plastered wall, glass fibers, approved waterproofing admixtures for external plaster and where indicated, plaster stopper, and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.									
B1.1	Plaster to internal masonry walls and reinforced concrete columns.	m2	1							
B2	<u>Waterproof External Finishing Render:</u> Prepare the surface, remove all dust or any loose particle, brush off any efflorescence, then apply one coat of external finishing render monocouche Pierre Liquide from Weber and Broutin or equivalent approved, complete including all necessary plastering (using cement sand plaster to external surfaces, (1:4) mix ratio, 20mm thick) , primer, providing adequate scaffolding and work surfaces to enable work to be carried out under good conditions, all necessary accessories, color and tone as selected by the Engineer, angle beads to match render color, and all other related works, all as specified, shown on the drawings, and to the satisfaction of the Engineer.									
B2.1	External Plaster + Waterproof external finishing render monocouche, of approved color, to façade surfaces.	m2	1							

B FINISHES 2/3

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
B3	<u>Alkyd/Oil Solvent Based Enamel Paint:</u> Prepare surfaces, supply materials, and apply one under coat, two coats of putty and two finishing coats of an approved alkyd/oil solvent based enamel paint to the following surfaces, complete all as specified, shown on the drawings, and to the satisfaction of the Engineer.									
B3.1	Alkyd/oil solvent based enamel paint: to all internal plastered walls in reception and carbon material storage rooms, the curing area, the mezzanine as specified on the design drawings.	m2	1							
B4	<u>Washable Acrylic Vinyl Copolymer Emulsion Paint</u> Prepare surfaces, supply materials, and apply one under coat, three coats of putty and two finishing coats of an approved washable acrylic vinyl copolymer emulsion paint to the following surfaces, complete all as specified, shown on the drawings, and to the satisfaction of the Engineer.									
B 4.1	Washable acrylic vinyl copolymer emulsion paint, of approved type & color, to internal plastered walls.	m2	1							

B FINISHES 3/3

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
B5	<p><u>Waterproofing :</u> Supply all required materials, and construct the following waterproofing system to the following slabs receiving reinforced concrete as floor finish for blocks A (curing area), complete including, but not limited to, the following:</p> <ul style="list-style-type: none"> - Surface preparation including cleaning & sealing of cracks and joints with approved sealant materials; - Execution of concrete upstands at edge openings; - Execution of cement sand mortar (1:3) beveled corners to all intersections, size 50 mm x 50 mm fillet; - Application of bituminous primer; - Application of one layer of SBS polymer modified bitumen membrane, 4 mm thick, to floor surfaces, and dressing up 200 mm high against walls and parapets, and covering all upstands; - Application of additional membrane at drain outlets; - Supply and installation of approved polypropylene protection boards, 5 mm thick, 650 g/m²; - Supply and installation of extruded polystyrene insulation boards, 50 mm thick, 35 kg/m³ density; - Supply and installation of 0.25mm thick polyethylene sheet; - Execution of groove and fixing the waterproofing membrane with fasteners, and application of approved mastic sealants; OR <p>Supply and installation of approved anodized aluminum flashing for waterproofing system, complete including mastic sealants and anchors; All necessary accessories and laps.</p> <p>- Provision of ten year free maintenance guarantee for the waterproofing system after completion of the works complete including coverage of materials and installation, and repairing all damages resulting from failure to resist the penetration of moisture;</p> <p>N.B.: The contractor must submit detailed shop drawings and method statement for the execution of this layer covering all the details and the execution stages to the project Engineer and get his approval prior to works execution.</p>									
B5.1	Waterproofing system to the floor of the curing areas, the carbon material storage, and the reception areas.	m2	1							

C Tile										
Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
C1	Ceramic Floor & Walls Tile: Approved first quality ceramic floor tiles, supplied, laid, bedded, and jointed in cement sand mortar (1:3) including sand bed, and pointed with white or colored cement mortar with waterproofing admixtures, complete all as specified, shown on the drawings and to the satisfaction of the Engineer.									
C1.1	Ceramic Floor Tile: Heavy duty anti-slip full body (plein masse) ceramic floor tiles, of approved type, dark grey color, matt finish, size 600 x 600 mm, 8 mm thick.	m2	1							
C1.2	Ceramic Wall Tiles: Approved first quality ceramic wall tiles of approved type, light grey color, matt finish, size 300 x 300 mm, 8 mm thick.	m2	1							

D Doors & windows 1/2

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
D1	<p><u>Overhead Coiling Strip Doors:</u> Supply and install the following galvanized steel rolling shutter strip doors, electrically operated complete including all necessary frames, supports, anchors, guides, roller shaft counterbalance, accessories, ironmongery, sealants, safety edge, overhead cover box, electrical operating components, control station, motors, controls, keys, automation system, operating hardware, connections, testing and commissioning, and all other related works, all as specified, shown on drawings and to the satisfaction of the Engineer.</p>									
D1.1	<p>Steel door MD04: electrically operated coiling strip doors, opening size 4000mm wide x 3900 mm high.</p>	Nb	1							

D Doors & windows 2/2

Item	Description	Unit	Quantity	Material	Labor	Equip.	Sub-contractor	Total direct cost	OH & Profit	Unit Cost without VAT
D2	<p>Aluminum Doors and Windows: Supply and install the following double glazed aluminum doors, windows Sidem 2000 Or equivalent, panels (color as selected by Engineer) complete including frames, sub-frames, galvanized reinforced steel for frames, transoms, sills, type Saint Gobain or similar approved, intumescent strips, anchors, fixing devices, accessories, hardware, ironmongery, gaskets, sealants, using 6 mm thick clear toughened glass, 12 mm thick void, and 6 mm thick clear toughened glass (6-12-6), mosquito nets, steel protection, natural stone tiles 3cm thick all around the window frame, and all other related works, all as specified, shown on the drawings and to the satisfaction of the Engineer.</p>									
D2.1	<p>Window WAL 01 with steel protection: double glazed aluminum windows, double leaf, sliding, steel protection, sliding mosquito net, tiles th 3cm all around the window frame, overall opening size 1400 x 1200 mm high.</p>	Nb	1							
D2.2	<p>Door DAL01: aluminum door, single leaf, overall opening size 90 x 210 mm high.</p>	Nb	1							

Attachment B - Preliminary Design Drawings of the Project

Attachment C - QA/QC Procedures

Submission	Frequency	Prepared by	Validated by	Approved by	Contract	Record Reference
Project organizational chart	Contract award/ Beginning of the project	Local Development Lead	Construction manager	Chief of Party	LDL will prepare the project organizational chart and will specify the human resources needed to develop the project. The Organizational chart will be adapted to every Project under DAWERR	Project Organizational chart
Mobilization						
Mobilization Plan (including Schedule)	Beginning of the project	Contractor	Site supervisor/ Field Coordinator	Construction manager	As per contract requirements	Document submittal DS Form
Submittals						
Material submittal*	As per schedule	Contractor	Site supervisor/ Field Coordinator	Construction manager/ Other Engineering Specialists	As per contract requirements	Material Submittal MS Form

Submission	Frequency	Prepared by	Validated by	Approved by	Contract	Record Reference
Shop Drawing submittal*	As per schedule	Contractor	Site supervisor/ Field Coordinator	Construction manager/ Specialist	As per contract requirements	Shop drawing submittal SDS Form
As-Built Submittal*	End of the project	Contractor	Site supervisor/ Field Coordinator	Construction manager/ Specialist	As per contract requirements	As built submittal AsBS Form
Documents Submittal*	As per schedule/ End of the project	Contractor	Site supervisor/ Field Coordinator	Construction manager/ Specialist	As per contract requirements	Documents submittal DS Form
Site operations & reports						
Work plan	Beginning of the project	Contractor	Site supervisor/ Field Coordinator	Construction manager	As per contract requirement	Documents submittal DS Form
Method Statement	Beginning of the project	Contractor	Engineering Specialists	Construction manager	As per contract requirement	Documents submittal DS Form
Kick Off Meeting	Beginning of the project	Site supervisor/ Field Coordinator		Attendees	After the site meeting the Site supervisor will issue the minutes of meeting and will share it with all concerned parties at the end of the meeting for approval.	Minutes of Meeting MOM Kick Of Form

Submission	Frequency	Prepared by	Validated by	Approved by	Contract	Record Reference
Minutes of Meeting	As needed	Site supervisor/ Field Coordinator		Attendees	After each site meeting the Site supervisor will issue the minutes of meeting and will share it with all concerned parties at the end of the meeting for approval.	Minutes of Meeting MOM Form
Site visit report	As needed	Field Coordinator/ Environmental officer (ECODIT Liban)/ DAWERR engineer/ USAID A&E firm	-	-	Each party visiting the site will prepare a site visit report and will share it with other parties. Comments will be included in the MOM of the next meeting for follow up.	-
QA / QC						
Inspection Request (IR)	As needed	Contractor	Site supervisor/ Field Coordinator	Engineering Specialist	As per contract requirements	Inspection Request IR Form
Non-conformity report (NCR)	As needed	Site supervisor/ Field Coordinator	Engineering Specialist	Construction manager	As needed	NCR
Modifications/Changes						

Submission	Frequency	Prepared by	Validated by	Approved by	Contract	Record Reference
Claims	When needed	Contractor	Engineering Specialist/ Manager	Chief of Party	As per contract requirement	Letter (External Document)
Request for Extension of time	When needed	Contractor	Engineering Specialist/ Manager	Chief of Party	As per contract requirement	Letter for extension of time (External Document)
Payments						
Quantity surveying preparation	When needed	Contractor	Engineering Specialist	Construction manager	As per contract requirement	Bill of Quantity and associated quality control reports on billed items
Request for payment review	When needed	Engineering Specialist	Construction manager, then Supply Chain and Grants Specialist	Chief of Party	Submitted quantities are checked by Engineering Specialist(s), corrected as needed, and forwarded to the Construction Manager. The Supply Chain and Grants Specialist then validates quantities, unit rates, multiplications and totals.	Bill of Quantity and associated quality control reports on billed items

Submission	Frequency	Prepared by	Validated by	Approved by	Contract	Record Reference
					COP provides final approval of the above and of payment in order to be forwarded to accounting/finance for payment processing.	
Interim payment log/Summary	When needed	Procurement Officer	Supply Chains and Grants Specialist	Finance Manager and COP	As per contract requirement	Interim payment log
Handing over/Final acceptance						
Request for provisional handing over	When construction works are completed	Contractor	Site supervisor/ Field coordinator	Construction manager	As per contract requirement	External Letter for provisional handing over
Provisional Handing Over	When needed	Site supervisor/ Field coordinator	Engineering specialists	Construction manager	As per contract requirement	MOM - Handing Over form + Punch List
Request for final handing over	After snag Lists clearance	Contractor	Construction manager	Chief of Party	As per contract requirement	External - Letter for final handing over
Final Handing Over	End of the project	Site supervisor	Construction manager	Chief of Party	As per contract requirement	MOM - Handing Over form + Snag List