

RFQ the Design of 42 Classroom School Building at Faryab province

Announcement No: DAARTT-67/17022019
<p>Background: DAARTT (Danish Assistance to Afghan Rehabilitation and Technical Training) is an NGO established in Afghanistan by the Danish People's Aid (DPA) in 2003. DAARTT is specialized in construction and capacity building in all aspects of construction. DAARTT's core staff consists of experienced Afghan engineers, architects and management board. DAARTT has constructed more than 100 schools, clinics and other buildings in Afghanistan; and also enhanced the capacity of the Afghan people and public organizations.</p>
<p>Item description and specification.</p> <ul style="list-style-type: none"> • Structure Design, Architecture Design, Electrical Design, Mechanical Design and for more Details refer to the Terms of Reference that it attached below in this file. • <p>For Further information please contact this number : +93(0)707600373</p>
Delivery location: Kabul province
Type: 30 day contract
Announcement period: 17.2.2019 – 24.2.2019
<p>Budget: The quotation must be in Afghani Currency, including transportation and other relevant cost. قیمت ها باید به پول افغانی و شامل تمامی مصارف از قبیل ترانسپورت و غیره باشد. مالیه دولت طبق ماده 72 قانون مالیات افغانستان وضع و به حساب وزارت مالیه انتقال می گردد.</p>
Quotation validation: 7 days from date of submission
The Quotation Must be Sealed and Submitted to the DAARTT Head Office before the end of bidding date and must be dropped In the bidding box.
<p>DAARTT Office Address : Kabul City, 4th District, kulola pushta, Radio, across from Jalal Tower No: +93(0)791910556</p>
Note: The quotation must have the announcement No, and subject, otherwise the quotation won't be considered.

Based on prepared Design TOR the highlighted areas must be considered by delivering design documents as:

- Cover sheet/?? and Index of drawings
-

5.-Deliverables

The following has to be delivered:

- A complete set of working drawings for each project (Hard & Auto Cad and PDF soft copies).
- Design analysis reports for each task of 42 Classroom School Building.
- Technical specifications for 42 Classroom School Building.
- Bill of quantities for 42 Classroom School Building.
- Narratives on Architectural design

Consultancy

Design of 42 Classroom School Building

Terms of Reference

DAARTT

DAARTT (Danish Assistance to Afghan Rehabilitation and Technical Training) is an NGO established in Afghanistan by the Danish People's Aid (DPA) in 2003. DAARTT is specialized in construction and in building capacity in all aspects of construction. DAARTT core staff consists of experienced Afghan engineers and architects. DAARTT has constructed more than 100 schools, dormitories, clinics and other buildings in Afghanistan and built capacity of the Afghan people and government entities.

DAARTT will be building a 42 classroom school (L- shaped design) in 2019-2020 and is requesting quotations from qualified consultants/consultant companies for their design.

1- General information

The 42 Classroom School Building will be constructed in Maimana provinces of Afghanistan – with the following dimensions:

Three-storey buildings in warm locations with pitch roof (about 1350m² ground floor areas)

The primary architectural drawings have been developed and attached with this TOR.

2-General requirements and responsibilities:

The consultant must:

- Produce all complete designs and working drawings for the buildings.
- Follow the architectural primary drawings as space guides and functional plans for 42 Classroom School Building.
- Follow DAARTT instructions at key stages of the design process
- Base designs on the Standard Building Construction codes.
- Produce the following documents for project:
 - Architectural designs and working drawings
 - Engineering Designs/Drawings, including the following:
 - Structural
 - Plumbing
 - Electric
 - Lists of specifications

- Bills of quantities
- Design analysis reports based on recording of all design calculations (submitted as separate files with the final drawings)

All drawings must be easy to read and understand, implementable and based on using construction material available in Afghan markets.

Only DAARTT logo and title box may appear on all documents.

Structure

Reinforced concrete footings and columns and three floor and roof slabs. Structure will be calculated to support seismic efforts for the region.

Masonry

Typical masonry for exterior walls will be 35-45cm thick brick masonry. Interior partitions will be 35cm or 25cm brick as required. Masonry will be plastered and painted.

Roof

The pitched roof will be supported by a wooden beam structure fixed to the roof slab. Roof finish will consist of standing seam galvanized metal sheeting (gage 24).

Insulation and false ceilings

The roof will be insulated with a rigid insulation and a vapor barrier, if required, placed on top of the roof slab. As the space between the slab and the roofing will be used for maintenance, adequate protection must be provided for the insulation so it can resist light traffic.

Electricity

The electrical installation will not be surface mounted and will follow international norms and standards. Lighting will provide adequate illumination levels for work and safe circulation on the premises

HVAC

In office & classrooms ceiling mounted fans will provide ventilation. No heating will be installed, however flues will be pre- installed in the walls of every room so that bukhari stoves can be installed by users at a later date.

Pavement and tiling

Pavement will consist of ceramic tiles adapted to public use, with skirting installed throughout. On the top floor, this pavement may be replaced by carpeting in the offices. Tiling in toilets will be done from light colored tiles running from floor to ceiling.

Painting

Exterior paint will be top quality weather shield paint applied to adequately prepared supports and will consist of filler, primer coat and two coats.

Interior paint will be top quality washable paint applied to adequately prepared supports and will consist of filler, primer coat and two coats.

Paint on wood or metal will be top quality oil based paint (satin finish) applied to adequately prepared supports and will consist of filler, prime coat or anti-corrosion coat and two coats of paint. Surfaces will be sanded between each coat.

Carpentry

Exterior carpentry will be made from high quality PVC (profiles having more than 5 cells) or thermal break aluminum profiles. Glazing will be done with 5+10+5 or 4+8+4 thermal glass, depending on the size of the opening. Window sills will be done in aluminum, bent hot-dipped galvanized metal sheet (gage 20 or better), marble or granite (thickness 30mm) depending on availability.

Interior carpentry will be solid wood. Doors will have transoms allowing light to reach the interior corridor. Glazing for the transom will be no less than 4mm thick.

Hardware will be aluminum or stainless steel.

Plumbing and sanitary installations

The installations are very simple but will comply with international design standards, in particular with respect to the design of the wastewater septic tank/design and the seepage pit.

- Water tower/design its capacity should be calculated based standard codes.



- Septic/ design and its capacity should be calculated based on standard codes.

Sanitary equipment will be selected so as to be able to meet the requirements of heavy duty use befitting a public building.

Exterior

Vehicle and pedestrian entrance gates and guardhouse will provide a safe access to the compound

Pedestrian access to the building will be paved; Areas for vehicles graveled and the open area of the plot leveled and lightly planted. Adequate exterior lighting will be provided for security, safe pedestrian circulation and access to the building.

4-Drawings and design document requirements:

A-DESIGN DRAWINGS

Given the size of the buildings, the drawings will be in A-3 format. Hard copies will be printed in black and white so they can be easily reproduced.

Scales used for Civil Engineering drawings will be 1/1000; 1/500; 1/200 and 1/100

Scales used for Architectural and Mechanical drawings will be: 1/200; 1/100 and 1/50

Scales for details will be: 1/50; 1/20; 1/10; 1/5 and 1/2 or clearly marked NTS - Not to scale.

General

- Cover sheet and Index of drawings

Civil Administration

- Site plan/details
- Exterior improvement
- Utility plan/profiles/details
- Pavement plan and details
- Storm-water Management details for both building and ground surface water



Architectural

- Life Safety plan following IBC 2006 and NFPA Code requirements/ABC Code or others specified by client organization.
- The size of rooms should be according to the ministry of education standards
- Room ventilation & lighting should be considered in accordance with standards
- Floor plans
- Reflected ceiling plan
- Roof plans
- Building elevations
- Interior elevations
- Interior and exterior wall sections
- Enlarged toilet plans
- Enlarged plans
- Stair plans, sections and details
- Exterior details
- Interior details
- Casework details
- Equipment plans and schedules
- Furniture plans and schedules
- Partition types
- Room finish and color schedules
- Door and window schedules
- Perspective drawing to explain concepts
- Landscaping/site plan

Structural

- Each sheet of engineering design must contain a table of steel bars.
- Foundation plans and partial detail
- Footing, grade beam, or rib schedules
- Roof framing plans and partial details
- Intermediate framing plans
- Sections and partial details illustrating typical major foundation and superstructure main force resisting framing structural members and connections
- All plans, sections, and details of special structural foundation and framing elements unique to the project

Mechanical

- Equipment schedules/locations
- Plumbing plans, risers, and details
- In the design part of the power supply, all the specifications of the power supply system should be arranged separately in the table.

Electrical

- Site plan
- Lighting plan and fixture schedules
- Power plant and equipment layout
- Outline riser diagrams for powered

B. - DESIGN ANALYSIS

The design analysis will address the following items:

Architectural DA

- Overall Design Narrative
- Narrative for each Building block
- Code Analysis

Structural DA

- Superstructure design loads, vertical and lateral; analysis for main force resisting framing system
- Foundation design loads and design analysis for main structural foundation members

Mechanical DA

- Plumbing calculations

Electrical DA

- Load calculations

- Lighting calculations
- Service size
- Feeder size
- Larger special circuit sizes
- Miscellaneous calculations as required. Examples; cathodic protection, lightning protection, etc

C. - TECHNICAL SPECIFICATIONS

Modifications, additions or deletions will be identified to provide a complete set of Technical Specifications to enable construction Quality Control and Quality Assurance.

D. - BILL OF QUANTITIES

5.-Deliverables

The following has to be delivered:

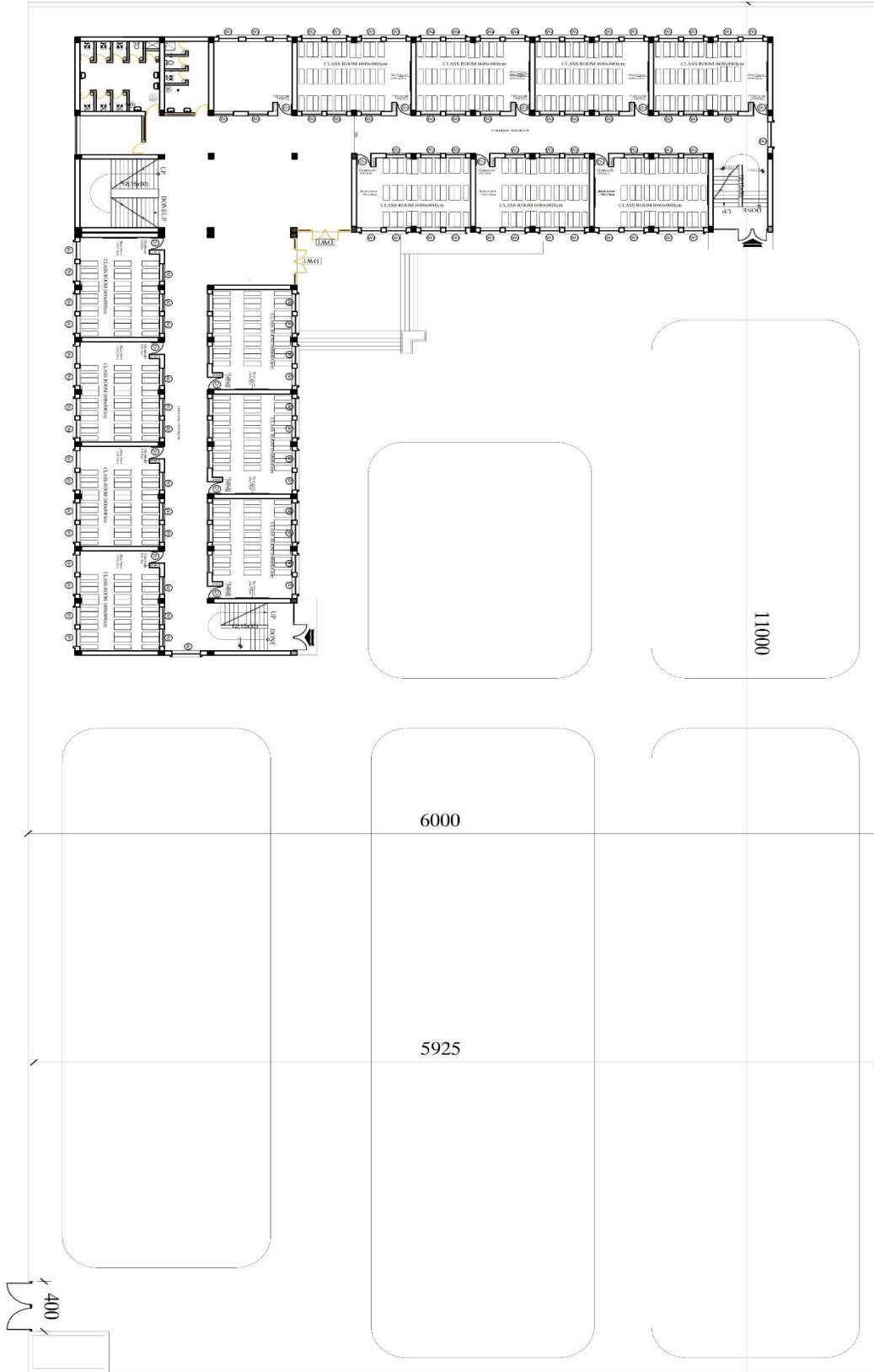
- A complete set of working drawings for 42 classroom school building (Hard and auto cad & PDF soft copies).
- Design analysis reports for each task of 42 classroom school building
- Technical specifications for 42 classroom school building
- Bill of quantities for 42 classroom school building

Main Responsibility of Designers:

- Designer is responsible for providing the calculations of necessary to the activities whose design are checked by them.
- Designer has been in charge of his overall design and development.
- Designer name and signature on each design sheet are essential.
- During the implementation of the school design in the site, if a problem occurs due to design, it is required to solve the problem by designer.

6. - Duration:

The drawings and design analysis reports must be finalized within 30 working days.





FIRST FLOOR PLAN