

Scope of Work

20 October 2018

Title

Construction of Transit Centre in Nimruz Province, Afghanistan

Donor Project code number: AFG_NRC_NIM_002

Donor of Project: PATRIP Foundation

Client: Norwegian Refugee Council (NRC)

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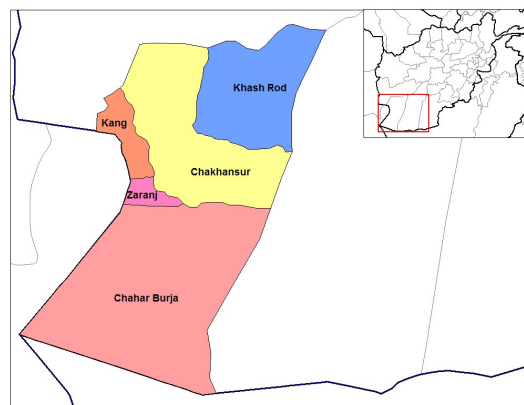
Introduction

1.1 Location of the project

Transit Center will be constructed in Nimroz Province in Zaranj City.



Location of Nimroz Province



Nimroz Province



Transit Center

Zaranj City

1.1.2 Scope

Construction of an appropriate building accommodating 200 people in a safe, warm environment. This building is designed to provide people with overnight cuisine, and necessary facilities for families, children and singles including open space.

1.1.3 General Goal

To make sure that the refugees who pass the Milak Border (border between Iran and Afghanistan) have access to suitable accommodations in a safe place for a limited time – 24 to 48 hours.

1.1.4 Specific Goal

Construction of a Transit Center for accommodation of 200 people at the same time.

1.1.5 Target Beneficiaries

This center will be constructed for Afghan refugees who return for Iran, either with the documents/official letter or without documents; it is estimated that over 35000 people including unaccompanied children, women, elders and disabled pass this border yearly.

1.1.5 Area Requirement

Transit Center shall be involving of following items:

1. Residential rooms with capacity of accommodating 200 people per night
2. Bathrooms and toilets separately for men and women
3. Administrative rooms for authorized staff
4. Main kitchen
5. Buried Water reservoir
6. Generator pad
7. Septic Tank
8. Perimeter wall
9. Fence wall and door for Generator Pad
10. Greenery and open space
11. Store for goods and instruments
12. Guard room

1.2 Monitoring and inspection

This project will be watched and monitored by Contractor QC Engineer, Consultant Engineer and NRC Engineer.

1.2.1 Contractor Company

Contractor should have Quality Control Engineer at job site to monitor and check all construction processes as per drawing, specifications, scope of work and schedule; also make sure about the quality of materials and implementation. It would be the responsibility of QC Engineer to provide daily QC Report as per the Format which will be provided by NRC Engineer.

1.2.2 Consultant Company

Consultant Company shall provide a schedule plan for monitoring and inspecting the work progress at job site especially for important parts of the construction work like foundations, columns, and slab to make sure the progress is according to the designed drawings.

1.2.3 NRC Engineer

NRC Engineer is also present at job site to watch and monitor both the contractor and consultant companies to make sure that the work progress is according to the QC plan, drawings, specifications and provided schedule.

1.3 Scope of Work

1.3.1 Work Preparation

Contractor shall conduct the Mobilization and site cleaning as per submitted work schedule as soon as the contract is signed. Company will transport all required machineries, tools and construction materials and personnel to the site and make a field camp for accommodating and storing material at job site.

1.3.2 Laying out the plan and Excavation

To lay out the plan of the components of ZTC, the contractor will align the executive plan of foundations at site, and after checking and approval of the client, they are supposed to start excavation works of the foundations based on a reference point - Bench Mark - at the site.

1.3.3 Back filling and Compaction

When backfilling, the contractor shall compact the soil in maximum 15cm layers, for optimum compaction of 95% MDD; proctor test is required to determine the compaction rate with plate compactor and 20cm with small roller compactor for foundations, bottom of rooms, stair case and warehouse.

1.3.4 Plain Cement Concrete

Provide PCC Mark 150 for leveling and having a clean area for RCC of foundations and PCC of walkways, stairs and ramps as per drawings and specifications.

1.3.5 Reinforced Cement Concrete

1. Reinforcement should have 413MPa tensile strength as per dimensions and bar no according to design drawing. Steel fixing of any structure should be inspected and approved by NRC representative before concrete placement.
2. Casting 28MPa concrete for the works of footings, Columns and slab, new metal shuttering or ply wood is required to be used. The contractor shall use crushed aggregate and fresh cement both certified in a registered laboratory; a mix design shall be prepared prior to processing any mixture of concrete for the entire project. All embedded equipment, conduits, sleeves.... should be place properly before concrete placement; the columns should be plumb and straight; the slab should be level before concrete placement; the cover for any elements, which is defined in specification, should be considered before starting the shuttering all around. The permission of NRC representative is compulsory before any concrete placement.
3. Contractor shall use crushed aggregate and fresh cement, with a mix design certified by a registered laboratory, to cast the 28MPa strength concrete.

4. Curing concrete should be conducted as soon as concrete gets its initially strength at least for seven days

1.3.6 Brick Masonry work

The Contractor shall use Burnt Brick of category A, shear strength of more than 70kg/cm² for masonry. The brick should be clean of any dust or soil before masonry; for each layer of brick masonry the masonry rope is required to make sure straightness of walls.

1.3.7 Plaster working

1:5 Cement-sand plastering shall be used for the interior and exterior surfaces of the main and partition walls; scaffolding is necessary to be installed and fixed with appropriate wooden boards, under the rules and regulation of the safety requirements and specifications.

1.3.8 Installing doors and windows

Before supplying and installation of PVC doors and windows, the contractor shall make samples for each kind of the doors and windows and officially submit them to the client for approval; if everything meets the requirement of the contract, drawings and specifications, the contractor can supply and install the doors and windows.

1.3.9 Ceramic Tile

Ceramic and tile works for the floor and walls shall be performed according to the drawings and BoQ; they should be fixed by cement-sand mortar of 1:3 and the joints shall be fixed properly as approved by the engineer, best quality job.

1.3.10 Painting work

Applying three coats of water Acrylic Emulsion Paint for exterior and Plastic Emulsion Paint for interior main walls and partitions. The responsible engineer shall make himself sure that the surface plasters are 100% dried, cleaned, and smooth before applying paint.

1.4 Plumbing work

Plumbing works shall be done properly with the good management system of works; all the pipes shall be fixed in straight lines, green pipe for all water supply uses and PVC Pipes for sewer lines. There should be two systems of plumbing one potable and one no potable including all required and related works such as pipes, fittings, reservoirs and etc.

A Buried water reservoir is required to keep water as a source. Using water pumps, the water should be pumped to the elevated water reservoir on the top of the main building.

All plumbing work should be tested before covering and approved by NRC Engineer to make sure that there is no leakage in either system (water supply and sewer systems).

Accessories which are required for toilet and bath are as bellow

1. Flash Tanks
2. Hose bib
3. Paper holder
4. Mirror
5. Soap dispenser

6. Towel Rack
7. Faucet
8. Cloth Rack

1.5 Electrical work

Electrical works of the building shall be done according to the drawings, specification and site adaptation, so in the case if there would be any alteration in cabling or wiring as built drawing is necessary to be prepared.

The Generator pad should be far from building in a suitable place to access installation and repairing. A fence wall should be provided all around the Generator pad to be more secure from people's reach.

1.6 Mechanical work

Contractor shall provide and install all Heating, Cooling and Ventilation Systems as per drawing and specifications; all ducts should be GI Sheet Gage#18 and should be properly joined together and to Exhaust Fan.

1. A Light Test should be conducted for all exhaust canals to make sure they are properly sealed.
2. Cooler canals should have thermal insulation.
3. All Exhaust Fans and Make up Air fans should be interlocked together with runs.
4. All the Exhaust Grill should be installed at the center of the rooms, toilets and Kitchen.

1.7 Punch list work

1.7.1 Punch list work

After completion of all activities, the contractor should have internal punch list to make sure all the parts are completed according to drawings.

A joint survey will be done by a team consisting engineers from different parties, in order to find out all the deficiencies and problems if remained during the course of the work; then the found items will be sent to the contractor as punch list and will be followed and corrected by contractor accordingly.

After correcting all deficiencies and listed items, it goes to pre final stage. If all the problems are solved, the completion of work documents shall be signed and approved by all parties and the project will go to delivery stage.