



Tebbaneh - Tripoli

Conversion of Cinema to a Referral building

Technical Specification Document – Annex to initial tender

May 2017

Technical Specifications

Section –I- General Specifications

1. Definitions

- Architect and Engineer: also referred to as Design Architect or Engineer means the individual or organization who furnished the design, which includes but not limited to the construction drawings and technical specifications.
- Prescription
- The “project implementer” means UN Habitat.
- The “Funding Agency” means the organization, entity, or persons who have entered into a contract or agreement with UN Habitat to achieve a development objective. UN Habitat is responsible to manage the funding provided by the Funding Agency.
- The “Supervising engineer”, or Engineer’s representative, means the person whose services have been engaged by UN Habitat to technically monitor and administer the subcontract as provided therein, as will be notified in writing to the contractor or stated in the Contract Data of the subcontract.
- The “Owner” means the individual or organization that will own, use and be responsible for operations and maintenance of the completed work.
- The “contractor” means the person or corporate body whose bid to carry out the work has been accepted by the project implementer who in this case is UN Habitat.

2. Location

Project is located in Tripoli, Tebbaneh neighborhood, and consists of the renovation of a cinema building and converting it to a referral center. It includes demolition, renovation, civil works, finishing and furniture supply and installation. The referral center will serve all inhabitants of Tebbaneh neighborhood.

3. General requirements

Prior to any works; Contractor must obtain written approval from Tripoli Municipality.

Approval must include proposed time table schedule submitted by Contractor, and approved by UN Habitat Engineer- Beirut Office.

Sign boards and visibility panels: (template will be given by UN-HABITAT)

4. Method Statements and Time Table Schedule

The Contractor shall provide in a reasonably timely manner a method statement to the Supervising engineer (Consultant) for any part of works upon request from the supervisor.

The Contractor shall also provide a detailed time table schedule on MS project or Primavera software, indicating all the phases of the project, starting and ending dates and specific key times for any particular job and major milestones to be achieved all along implementation period.

All schedules shall be in the English language and any system of dimensions (English or metric) shown shall be consistent with that used in the subcontract.

An update of the schedule shall be provided, schedule of deliverables, showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

The contractor shall submit to the supervisor representative for approval an update schedule.

The supervisor approval of the schedule shall not alter the contractor's obligation to perform within the period of performance. The contractor may revise the schedule and submit it to the engineer again at any time. A revised schedule shall show the effect of change orders, where applicable.

5. Safety of the site, material and personnel

It shall be the Contractor's responsibility to safeguard by means of temporary or permanent supports or otherwise all existing installations, pumps cables, panels or other things which would be liable to suffer damage if such precautionary measures were not taken.

6. Record drawings

Where the Contractor executes work under the contract, including locations where the Contractor undertakes repair or rehabilitations work, the Contractor shall record the location and nature of all existing installations and their associated services.

Where instructed by the Supervisor for the purpose of producing record drawings, the Contractor shall undertake such surveys and investigations to determine the location of existing services. Such surveys and investigations shall be additional to those surveys and investigations undertaken by the Contractor for determining the location of services prior to excavation.

The Contractor shall where necessary utilize appropriate equipment and where instructed by the supervisor excavate trial pits to confirm the location and determine the size and nature of the buried services.

For sites where the Contractor undertakes permanent works the record drawings shall be submitted to the engineer for approval, as part of the as built drawings. In the case of repairs and rehabilitation the record drawings shall be submitted for approval within a period of 15 days following execution of the work.

7. Project Management

The Contractor shall provide within his site organization a project management section to recommend and be directly responsible to the Contractor's Project Manager. The duties of the section shall include the following:

Planning and program preparation particularly in relation to the requirements of the Employer and the public authorities.

Continuous surveillance of progress and anticipation of factors likely to affect the timely performance of the contract.

Making proposal for modification to forward planning and to the program at an early stage.

Continuous appraisal of the Contractor's methods and routines particularly as to their effectiveness relating to speed of execution and to their effect on the community and property.

Forward planning for resource requirements taking due account of possible shortages and delays in the arrival on site of materials, equipment, plant and personal and their mobilization for effective usage.

Acquisition and process of up-to-date information for progress with the engineer. The preparation of Monthly Progress Reports including an update of the detailed program and cash flow forecast which shall include progress pictures as directed by the Engineer.

8. Required Standards

Works covering the conversion of the cinema to a referral center must conform to the technical specifications described later in the tender documents.

Any reference to codes, specifications or standard means the latest edition or revision of above referenced codes or standard.

Any work shall be manufactured (constructed), tested and installed in conformance to international standards, or regulations applicable to such work.

The approval of “Supervisor” is a must prior to any work.

Any alternative proposal on required standards covering specifications, drawings and bill of quantities, must be approved by “Supervisor”.

Silence of specifications:

The apparent silence of the specifications as to any detail, shall be considered as meaning “that only the best general practice” is to be used.

In such case “Supervisor” will make the necessary and relevant interpretations covering such works.

9. Correspondence and records

All correspondence between Contractor and “Supervisor” shall be made in English.

All records, sheets, drawings and documents shall be in English language.

Units:

The international system of metric units shall be used throughout this contract.

10. Intent of the contract

The contract determines and specifies all the work conditions for the construction and completion of the desired work.

Intent of contract is also the description of the work procedures in every detail enlisting all items related to:

The responsibilities and duties of the Contractor to furnish all the supplies, such as: labors material, equipment, transportation in accordance with the plans, specifications and terms of the contract documents.

Submittal of shop drawings, (plans & sections) will be approved or returned for modifications within 8 days of submittal.

11. Terms in the contract

Expressions Like:

Contractor refers to the entity responsible for implementing the works.

“As shown”, “as indicate”, “as detailed” as terms of the same connotation, imply that the work should be done according to the drawings and the related specifications.

“As approved”, “as directed”, “as required”, “as accepted” should mean and understood that the approval, direction, requirement, permission, authorization, review or acceptance of the “Supervisor” is intended.

“Provide”, that be understood to mean “complete in place”, “that is”, “furnish and install”.

“Equal” or “equivalent” means that material or equipment will be acceptable when composed of parts or equal quality, or equal workmanship and finish, designed and constructed to perform or accomplish the desired result as efficiently as the named brand, pattern, grade, class or model.

12. Quality control

Contractor is responsible for his own quality control and shall provide competent personal for supervising his works, taking and preparing samples and for carrying out all necessary required tasks including concrete and civil works, tiling, plastering, painting, wood works, insulation and partitions, and furniture.

13. Reporting

Contractor in coordination with “Supervisor” will prepare and submit a detailed measurement of works that are completed within the month frame.

Measurements are according to BOQ items and any addition in works greater than what is mentioned within the BOQ must be within an approved work Comparison Table.

All materials that must be brought on site must be supplied in suitable containers and in appropriate batch sizes for the work to be undertaken.

Any warnings or precautions concerning the contents and their safe use;

Add to this that Contractor shall supply with each consignment of proprietary material delivered to the site, certificate furnished by the manufacturer including:

The manufacturer’s name and address;

Material identification;

Batch reference numbers, size of each batch and the number of containers in the consignment;

Date of manufacture;

14. Refusal of delivered materials

In case delivered articles or materials are found unsound or of poor quality, such items will not be used and must be removed from site, and replaced by materials pre-inspected and approved by “Supervisor”.

15. Quality of supplied materials and of workmanship

The materials and workmanship shall be the best of their respective kinds to the approval of the “Supervisor”.

The words “to the approval of Supervisor” shall be deemed to be included in the description of all materials and workmanship for the due execution of works.

16. Approval on materials

All proposed and supplied sources of materials, construction requirements and proposed standards should be deemed to the “Supervisor’s” approval, the “Supervisor’s” has to approve and agree upon any standard or method of manufacture or specification whether to maintain or change these items.

In other words, nothing related to the constructions or works, or the choice of standard materials in terms of quality (and liability or validity) should be carried out or obtained without the ultimate approval of the “Supervisor”.

Samples of materials shall be submitted to the “Supervisor” for approval, materials supplied must confirm to the quality of the samples that have been approved by the “Supervisor”.

17. Damages to utility properties

Any damage occurring in the course or progress of work that is adjacent to telegraph, telephone and power agencies or companies or even adjacent to neighboring property, shall be rearranged on Contractor's expenses in cooperation with the owners of any underground or overhead utility lines.

The damage resulting in terms of considerable expense or inconvenience shall be managed before the continuation of work.

18. Starting out of works – Submittal of shop drawings

Upon receiving clearance to start works, Contractor will submit to the "Supervisor's" approval, detailed drawings and data sheets required to start works.

Coordination will be made between "Supervisor" and Contractor, so as to agree on basic information supplementary to that shown on submitted drawings.

Supplementary information will be submitted on draft drawings, sketches or in writing.

The Contractor shall submit to the "Supervisor" shop drawings that shall satisfactorily establish actual details of manufactured or fabricated items and of works to be executed.

Shop drawings shall clarify and amplify the design drawings and other design requirements and shall, incorporate minor changes in design or construction as may be necessary to suit the requirements of the work.

By submitting shop drawings, the Contractor thereby admits that he has determined and verified all dimensions in relations to existing works, as well as with regards to future works on site.

Accuracy of information submitted by Contractor is under his strict responsibility and any discrepancies, errors or omissions in supplied drawings must be corrected and then re-approved by "Supervisor".

The Contractor shall submit final as-built record drawings to the "Supervisor" for his review by the specified date.

After review and approval by the "Supervisor" of the final as-built drawings, the Contractor shall within 7 days thereof, produce a final set of "as-built drawings" and submit to the "Supervisor", one computerized disk copy and 2 printed copies.

In case there are no changes with proposed design drawings, the contractor must obtain of the approval of "Supervisor" prior to commence works.

19. Miscellaneous works on site

While working on site, Contractor must keep the site as clean as possible by removing wastes, debris and other materials to approved dumping locations.

At the end of works, Contractor shall clean the site to restore it to its initial condition, to the exception of works he has completed.

On all occasions works shall be properly flagged.

Site must be lighted at sunset and whenever visibility is found poor.

20. Insurance

Contractor must insure his staff and materials against incident and theft, and must also insure his site against any incident that might occur to pedestrians and vehicles and against any third party claim with regard to his work on site.

Insurance must cover the whole period of works on site.

21. Site demobilization

Upon completion of works and after getting the approval of “Supervisor”, Contractor will proceed to the removal of all equipment from site.

Contractor must clean the site and remove all remaining debris, materials in excess, temporary structures.

Section-II- Particular Specifications

All equipment furnished under this section shall be fabricated and assembled in proper operating conditions in full conformity with drawings, specifications, engineering data, instructions and recommendations of the equipment manufacturer unless exceptions are noted by the Engineer.

Section 1: Demolition

- A. The works include the demolition of the existing bathrooms, kitchen accessories, fittings, sinks, wash areas along with part of the existing stage, and the existing stepped slab which will be replaced with new ones.
- B. It is the responsibility of the contractor to transport and deposit the debris in a convenient site.

Section 2: Civil Work

2.1 Concrete Works

2.1.1 Scope

This item consists of adding Concrete Masonry Unit walls in the First Floor next to the Entrance to create the Entrance of Room 3 and an office in Room 6.

2.1.2 Materials

A. Masonry Units:

Refer to ACI 530.1- Specification for Masonry Construction.

B. Mortar:

Portland cement mortar used for placing CMU walls on the base shall be mixed in a ratio of 1 part by volume of cement to 3 parts by volume of sand. The mortar shall be of the desired consistency. Mortar which is not used within 45 minutes after water has been added shall be discarded.

2.1.3 Construction Requirements

The masonry unit is set on a layer of mortar and carefully tamped in place to the exact lines, grades, and elevations. The wall should match the details on drawings.

2.2 Steel Works

2.2.1 Scope of Work

The steel works in this project consists on adding steel columns between the second and the mezzanine and adding a steel slab on second floor to replace the demolished stepped concrete slab. The steel slab will be supported on existent concrete columns and planted steel columns. Steel stairs will be added, in addition to a circular steel stair.

2.2.2 Materials

The steel used for the columns and slab should abide by ASTM A992/A992M.

2.2.3 Construction Requirements

2.3 Tiling

2.3.1 Scope of Work

All floors will be tiled: first floor, second floor, and mezzanine, including all the rooms: offices, kitchen, toilets, theater, and stairs.

2.3.2 Materials

- All floors should be tiled by ceramic tiles used for industrial purposes since the building is expected to be heavily used. ASTM standards for ceramic tiles ASTM C373, ASTM C1243, ASTM C485, ASTM C1028, ASTM C1027, ASTM C1026 and ASTM C648 should be respected.
- All concrete stairs are to be tiled by ceramic/mosaic tiles. The use of a bonded mortar bed is recommended for installing tile on the treads of concrete stairs.
- Bedding layer should be semi dry when spread to floor. The bedding layer should have a 1:3 cement:sand ration.

2.3.3 Construction requirements

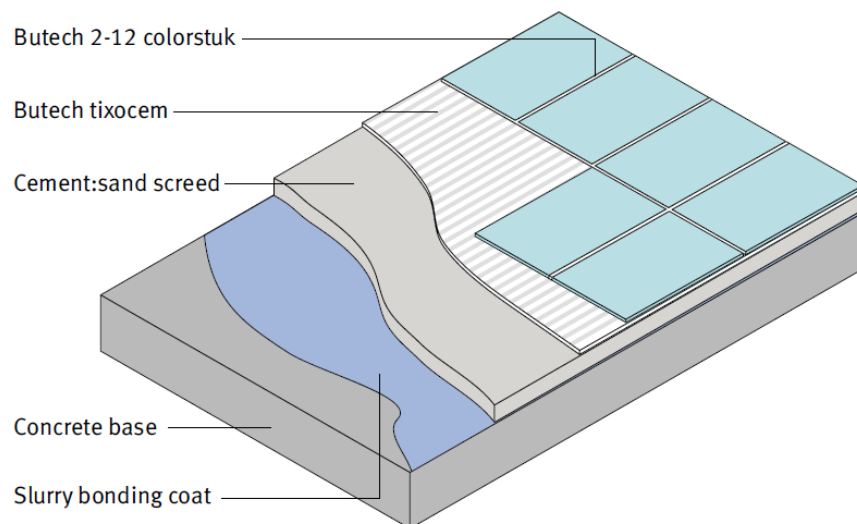
Stairs:

- Clean concrete stairs: remove dirt, dust, debris and loose particles that could affect mortar bond.
- Clean dirty or stained tiles using clean water.
- Lay tiles at designated levels.
- Apply water proof material to back of tile in two coats. Allow 1 hour pause between coats.

Floors:

- Tiles should be laid on the concrete surface. In case tiles already exists, they should be removed and new tiles should be laid on the concrete surface.
- The procedure for the tiles construction should follow these steps:

Cement:sand screeds



- Before commencing any work ensure that the background/base is:
 - Sufficiently flat
 - Suitable for the intended service conditions
 - Sufficiently strong and rigid to support the tile finish
 - Free from any contamination
 - Clean
 - Dry

- Cement: sand screeds
 - For new screeds: Allow a minimum 3 weeks drying time.
 - For exiting screeds: Cut out all loose or hollow portions and make good with a 1:3 cement: sand mortar applied over a slurry bonding coat (Slurry bonding coat: 2:1 Portland cement: Butech universal agent by weight).
 - Remove any unsound adhesive residues without damaging the base.
- Allow a minimum 6 weeks drying time.

2.4 Partitions

2.4.1 Scope of Work

In the first floor, moveable partitions will be installed in order to have separate rooms 7B and 7C when needed. In the second floor and mezzanine Aluminum and glass partitions will be used for partitions, and a gypsum partition will be used to separate rooms 16A and 16C.

2.4.2 Materials

- Gypsum Boards Partitions: Gypsum board should abide by ASTM C1396
- Aluminum and Glass Partitions:
 - Providing and fixing anodized aluminum work for partitions with extruded built up standards tubular and other sections of approved make and confirming to IS 733 and IS 1285 anodized transparent or dyed to required shade according to IS 1868 (minimum anodic coating of grade AC 15), fixed with Rawl plugs and screws or with fixing clips or with expansion fold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/Neoprene felt etc. Aluminum sections shall be smooth, rust free, straight and jointed mechanically wherever required including cleat angle, aluminum snap beading for glazing/paneling, CP brass/ S.Steel screws, all complete as per architectural drawings and the directions of Engineer.
 - Minimum glazing dimensions and minimum edge cover are tabulated below:

Glass thickness (mm)	Minimum edge cover	Minimum edge clearance	Total rebate depth (mm)
6	6	4	10
8	8	5	13
10	8	5	13
12	9	6	15

- Operable Walls:
 - The operable wall system shall consist of Individual Panels that are top supported by two (2) carriers riding through radius Curve and Diverter type intersections.
 - The operable wall system shall consist of acoustically rated panels tested in accordance with ASTM test procedures.
 - The operable wall panel construction and finish materials shall consist of Class A rated materials in accordance with ASTM E 84.

2.4.3 Construction requirements

- Gypsum Boards Partitions: Construction of gypsum board should abide by ASTM C840 (Standard for Application and Finishing of Gypsum Board).
- Aluminum and Glass Partitions:
 - Height Range: height between 2600mm and 3200mm (Adjustable header sections to be

provided for variations in floor to ceiling heights)

- Thickness: Minimal width 50 mm.
- Frames: Extruded non-corrosive aluminum with a minimal width of 50mm. Telescopic adjustable header-section with suitable adjustment range to accommodate varying floor-to-ceiling heights, with secure locking system. The header-sections must adjust to full ceiling height and engage a ceiling channel strip attached to the ceiling tee by means of fabric protected swivel clips. No drilling allowed into ceiling tees. Frame to frame locking shall be by means of a secure locking mechanism. No self-tapping screws are to be used. Frame to pole locking shall be by means of a secure locking mechanism with provision for re-usable aesthetic sealing of exposed surface attachment points. No self-tapping screws are to be used.
- Glazing: Minimum 5mm thickness safety glass in non-corrosive powder coated aluminum with single glazing. Glass +/- 2330 mm high and 1200 mm wide.
- Operable Walls:
 - **Structural Support**: Structural support system required for suspending the operable wall shall be designed, installed and pre-punched by others, in accordance with ASTM E 557 and manufacturer's shop drawings.
 - **Insulation**: Sound insulation and baffles for the plenum area above the track system, under the permanent floor, inside air ducts passing over or around the operable wall, and in permanent walls adjoining the operable wall system shall be by others, in accordance with ASTM E 557.
 - **Cinema Screen size** : 3.0m x 6.0m or 4.0m x 6.0m
 - **Opening Preparation**: Proper and complete preparation of the operable wall system opening shall be by others in accordance with ASTM E557, and shall include floor leveling; plumbness of adjoining permanent walls; substrate and/or ceiling tile enclosures for the track system; and the painting and finishing of trim and other materials adjoining the head and jamb areas of the operable wall. Any permanent wall(s) receiving an adjustable or fixed wall jamb will require internal structural blocking in order to secure the jamb to the permanent wall.
 - The operable wall shall be installed by the manufacturer's authorized distributor in accordance with ASTM E 557.

2.5 Wood Works

2.5.1 Scope of Work

Wood works include adding doors, tables and the wooden gate. In addition to that, a wooden stage will be supplied and install.

2.5.2 Materials

Stage: Wood elements should be solid core wood / hardwood, oak teak or similar, non-rated and fire-rated, both neutral and positive pressure rated flush;

Doors, tables and the wooden gate: Wood veneer and high pressure door laminate; factory fitting, machining and factory finishing.

2.5.3 Construction requirements

Doors and gate:

- The veneer must be adhered to material with alternating (perpendicular) grain direction and provide for balanced construction. Door skins may also be constructed using composite cross bands.

2.6 Plaster

2.6.1 Scope of Work

Plastering will be added to the newly constructed walls.

2.6.2 Materials

Plastering is done by applying cement mortar with required ratio i. e. 1:3, 1:4, 1:6 on the walls and the plaster should be in straight line, level and plumb and the joint must be in right angle.

Handing over

2.6.3 Construction requirements

- The surface to be plastered should be racked out and cleaned with wire brush. It should be made wet 24 hours before starting the plaster.
- All the doors, window frames, electric fittings and water supply lines must be fitted before starting the plaster and they should be laid as per drawings.
- Care should be taken that unwanted cement mortar on the frames and electric fittings should be cleaned immediately after finishing the plaster.
- Proper curing should be done at least for 7 days after the plastering is complete as it is the most important factor for maintaining the strength of plaster.

2.7 Painting

2.7.1 Scope of Work

All walls and ceilings in the referral will be painting, the existent walls and the new ones.

2.7.2 Materials

Double coat, Acrylic vinyl and Latex emulsion paints, smooth finish, colors to be selected by the Engineer, Painting material should be supplied by the contractor. The choice of painting material and color should be approved the engineer.

2.7.3 Construction requirements

- Where required, surfaces should be made good, i.e. filling, sanding, decorators caulk where necessary. Surface should be smooth and even unless exposed block or concrete formed walls/columns. All existing nails, screws, wall plugs etc,s should be removed and made good.
- Undercoat to be applied where necessary followed by a mist coat and two top coats. All snots must be rubbed down and top coat reapplied.