United Nations Development Programme
Mozambique-Pemba

STABILIZATION AND RECOVERY PROJECT CABO DELGADO

SCOPE OF WORK FOR THE MACOMIA HEALTH CENTER (ITB)

- **LOT 01 Health Center full Rehabilitation** (Health center main Building, Maternity blook 02, Mother's waiting room, Warehouse 01, Warehouse 02, Laboratories, Elevated photovoltaic water system).
- **LOT 02 Rehabilitation of Doctor's Residences** (Doctor's Residence 01 & Doctor's Residence 02).
- **LOT 03 Rehabilitation of Nurse's Residences** (Nurse's Residence 01 & Nurse's Residence 02).

PEMBA

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1. INTRODUCTION

This Descriptive Memory and Justification of the Executive Project refers for the full Rehabilitation of the Macomia Health Center. The implementation of the project will take the form of an ITB (Invitation to Bidding), which consists of the rehabilitating several buildings in a single project, and this ITB will comprise the rehabilitation of the health center main building, the mother waiting room, the laboratories, the warehouses and the residences of doctors and nurses. Tenderers are advised to visit the sites, familiarize themselves with the buildings and carry out the measurements they deem necessary, as claims due to lack of knowledge of the site will not be accepted. The measurement method for all items will be based on actual dimensions, openings are deductible and all calculations per m². The contractor shall submit any required details (shop drawings) and as built drawings and update all works progress as directed by the UNDP Civil Engineer. All Payments must be submitted together with drawings and measurements which are verified and approved by the UNDP Engineer.

2. PROJECT DESCRIPTION

The choice of the proposed facilities of this ITB was based on its importance according to the needs of the Macomia District Government. The UNDP team carried out several visits to explore the site and assess the damages, meet with the relevant authorities at technical level and district government, and together was drawn up an action plan for the implementation of the project in question.

The main interventions in the buildings to be rehabilitated will consist on general cleaning, including removal of asbestos, removal of burned cars and removal of all solid waste; repairing the walls, including filling the cracks, plastering and painting; Coating the floor, including installation of tiles; repairing and supplying a new roof structure, including repairing and supplying new false ceiling; repairing and supplying windows and doors; electrical installation including supply and installation of solar panel; repairing the water system in the buildings; repairing the sewage system; and repairing and supplying a new fence and sidewalks.

2.1. GENERAL CLEANING AND WASTES TREATMENT

The General cleaning will consist of cleaning the external part of the building, including removal of grass, bushes and burnt cars; and internal part of the building including removal of all generated damaged material from the roof structure (asbestos or IBR sheets and ceiling), walls and the floor debris, damages windows and doors, and lastly treating the waste. The main cleaning activity will be the safe removal of asbestos with suitable removal material and working method, which will consist in evacuating areas adjacent to the asbestos removal area, eliminating the release of airborne asbestos fibers (wetting prior to removal), packing the removed asbestos and safe cleaning of asbestos debris from the building to a location chosen

by the district government entities. The materials to be used includes a suitable standard of coveralls, gloves, shoes and Respirator and protective equipment as described below:

i. Coveralls (to prevent penetration of asbestos fibres as far as practicable, disposable coveralls rated type 5, category 3, prEN ISO 13982–1 or equivalent).
ii. Gloves (Gloves used for asbestos removal work need to be disposed of as asbestos waste. Laundering/cleaning these gloves is not recommended due to physical damage/deterioration as a result of the work performed and cleaning process).
iii. Shoes (To be steel-capped, rubber-soled work shoes or gumboots).
iv. Respirator protective equipment: Full-face masks, particulate, filter type P3 (cartridge) respirator.

This activity shall include training all persons performing asbestos removal to enable them to perform the work safely and without risk to health, and all needed tools and equipment's (see the attached pictures below).

2.2. WALLS, FLOORS AND PAINTING

2.2.1 Walls

The works of the internal and external walls will consist of repairing and/or installing new walls and supplying and installing new tiles for the bathrooms and kitchen. Completely damaged walls the works will consist of demolishing and supplying new masonry, beams, columns, and plaster. For less damaged walls it will consist of cleaning the walls, debris, and filling cracks. Cracks less than or equal to 1mm in width, the filling shall be with the type of flexible putty, recommended for small cracks, on internal and external walls; cracks greater than or equal to 1mm in width, the filling shall be with a flexible structural repair of greater penetration, recommended for the most severe cracks. Walls that present cracks above normal openings or in poor condition of the plaster, it will be necessary to peel the plaster and supply a new one with application reinforcement plaster technique. In addition, this item comprises repairing and supplying a fence wall with dimensions similar to the existing ones, made by class A concrete blocks, minimum compressive strength 4Mpa, including plastering the internal and external wall.

2.2.2 Floor

Floor coating for the health center main building, mother's waiting room and the residences will consist of installing new tiles, for the warehouses and laboratories since there's minors damages it will consist of repairing with spoon-fired screed, leveled and straightened concrete to a thickness of 5 cm, and application of "Almagre" terracotta-colored dye to a thickness of 2 cm. In addition, this activity included repairing the existing exterior flooring, which will consist of supplying and laying 5cm thick screed with joints, made with B20 concrete, including the application of 6mm electro welded mesh.

2.2.3 Painting

This activity will consist of painting all the walls with CIN, NEUCE, PLASCON paint or equivalent, smooth texture, through the application of creed (for external walls), followed by a cleaning primer, based on Pliolite resins and organic solvents, as a surface fixative, two and three coats of finishing "Silk or eggshel, matte finish, diluted with 10% water, based on an acrylic-vinyl copolymer, impermeable to rainwater and permeable to water vapor, anti-mold, (yield: 0.1 l/m² or 0.125/m² each coat.) The tonality of the paints must be a color to be specified by the Owner or in accordance with the instructions of the UNDP engineers.

2.3 ROOF STRUCTURE AND CEILING

2.3.1 Roofing

This item will consist of removing all asbestos roofing, supply and installation of new roofing in IBR 686 of 0.6 mm, applied in pine wood structure or similar to the existing roofing structure. This activity includes installation of beams and columns to support the structure and trusses, metallic elements for connection and fixing to the supports. The wooden structure must include the painting of the frame and trusses with transparent oil paint at least 3 coats, interspersed in 1 hour, to protect the wood. For buildings with minor damage of the roof structure, the work will consist of supplying all necessary the accessories for its correct repair. In addition, the roof will include the installation of a 110mm diameter PVC water gutter and a 75mm diameter PVC rainwater downpipe for the water tank. The scope of this work must include the necessary work, which is not limited to carrying out the water leak test of the new roof structure, and safely removing the damaged roofing and all relevant work to complete the work.

2.3.2 Ceiling

This Item will consist of installing a new false ceiling in 12mm thick plywood panels, with a flat surface supported by wooden beams the same type as the roof structure, with dimensions similar to the existing on the building, the fixation must be done by means of a screwdriver. The wood structure shall include painting the frame and trusses with clear oil paint at least 3 coats, interspersed for 1 hour, for protection of the wood. For the buildings presenting minor

damages on the ceiling, the works will consist of supplying all necessary accessories for its correct repairing.

2.4 WOODEN FRAME AND HARDWARE

The frames will be made of Chanfuta or Umbila wood, well dried, with straight and united fibers, without knots, not burned, without cracks, free of mold or other fungi, of uniform color, regular aspect and evenly distributed, and executed according to the presented drawings. The frames will be nailed to the masonry correctly, window and doors frames must be laid in such a way as to close hermetically and to function perfectly.

The windows shall be applied plastic mosquito nets, with a 1.5 mm mesh, the net should be perfectly straightened and stretched, with protected terminals, including glass of 4 mm thickness, stainless steel hardware (hinges, fasteners, regulators, and latches) Yale brand or equivalent. The works shall include varnishing with cinacryl satinado acrylic enamel (ref: 12-220) of all windows and frames, fixing accessories, and all relevant works for its proper functioning.

The doors shall be made of the same materials as the windows, applying a trim made of the same material, including stainless steel hardware (locks, hinges, pair of handles) Yale brand or equivalent, and all fixing and mounting accessories. The work shall include varnishing with cinacryl satinado acrylic enamel (ref: 12-220) of all doors and frames, and all relevant works for it proper functioning.

For the windows and doors with minor damage, the works will consist of repairing and installing the needed materials and accessories for its correct functioning. The works shall be included, which is not limited to preparing the windows and doors (dust cleaning, scraping, filling the cracks, etc.), varnishing with CINACRYL SATINADO acrylic enamel (ref: 12-220) of all doors and frames, and finishing with a plastic paint based on acrylic copolymers dispersed in aqueous medium, with great flexibility, resistance and adhesion (yield: 0.125 l/m² each coat), the tonality of the paints must be a color to be specified by the project owner or in accordance with the instructions of the UNDP engineers.

2.5 ELECTRICAL INSTALLATION

The works of this items must be included: supplying and installing wires or cables, pull boxes, Column box, Switchboard, Removable Earth Measuring Box, Earth electrodes, Grounding bare cable, Fuses and it's base, Neutral Base, Ring tube, Undervoltage Releaser, Protection Circuit Breaker, Sockets, switches, LED lamps, Circuits cutting differential, Unipolar phase flag, General Circuit Breaker, Junction boxes, Isogris tubes, switchgear boxes, Connectors, and all needed material and accessories for its correct installation/assembly. The works shall include all civil and finishing works related to the item, including connect the electricity to the nearest source, moreover, testing the entire electrical installation of the buildings for its proper functioning.

For the buildings presenting minor damages on the electrical installation, the works will consist of supplying all necessary material and accessories for its correct repairing.

In addition, an on-grid photovoltaic system will be installed, with solar panels, including a DC charge, Battery tank, AC inverter, Circuit breaker, Fuses and its base, Column box, Switchboard, Wires or cables and all needed accessories for its correct operation. The works shall be included, which is not limited to supply and install battery cabinet made of a grid formation burglar, dimension according to the quantity of the Batteries.

2.6 SANITATION

The works of this items must be included: supplying and installing a complete set of low-tank toilets, Bathtub, Pedestal wash basin, stainless steel sink, Turkish vertical outlet toilet, complete stainless steel bathroom accessories (towel rail kit, soap dish, roller holder, broom, etc.) and all fixing accessories according to the needs of the building to be rehabilitated. The works shall include all civil and finishing works related to the item, including testing the entire hydraulic installation of the buildings for its proper functioning.

2.7 WATER INSTALLATION AND SEWERAGE

2.7.1 Water Installation

The main intervention to be done will consist of repairing the entire water supply system considering the actual conditions in the building. This activity includes repair the hydraulic installation of the buildings, consisting of removing all damages accessories (pipes, valves, faucets, etc.), and installing new accessories, which is not limited to supplying and installing water reservoirs in Rigid PVC, including a motor pump with a capacity to supply the building. The works will include all civil and finishing works related to the item, including connecting and testing the entire water installation of the buildings for its proper functioning.

2.7.2 Sewage

The works for this item will consist of repairing the entire plumbing system considering the actual conditions in the building, it includes removing all damages accessories (tubes, valvules, siphons, joints, curves, etc.), and installing new accessories, which is not limited to repairing the existing septic tank. The works shall include all civil and finishing works related to the item, moreover, testing the entire sewage system for its proper functioning.

3. METHOD OF ACHIEVEMENT

3.1 CONSTRUCTION MANAGEMENT

A procured construction firm under supervision of the UNDP engineers will perform the facility rehabilitation works. Additional engineering support will be provided by the Provincial

Department of Health (DPS) to assure that the rehabilitation design and works is compatible with existing and are properly interconnected.

3.2. CONSTRUCTION SCHEDULE

The rehabilitation schedule is fully integrated with the general resource loaded for UNPD projects. The facilities will be rehabilitated on a dynamic schedule with project schedule goals and designed to enable the project's mission performance objectives.

3.3. QUALITY WARRANTY

The project will be conducted in accordance with the UNDP engineer's quality assurance process (QAP) that applies to all work conducted by UNDP. The QAP will consist of the following criteria: Program, Design, Work Process, Inspection, Evaluation, Quality Improvement, Documents and Records.

3.4. COMMISSIONING

An important element in the ultimate success will be proper commissioning of the facility. The facility and instruments will require achieving their maximum performance to fulfil the project mission. The contractor specialized team will be responsible for the commissioning works.

4. FINAL PROVISIONS

Everything that is not mentioned in these specifications, it is recommended to follow the regulated techniques for the construction of such projects, and the procedures according to the instructions of the UNDP engineer.