

Annex I

Overall objectives and context of the project intervention

I. Context

MSL is now starting the process leading to the increase of its warehouse space and adaptation of its central store in Lusaka. UNDP is providing an active support to this process. The increase of warehouse space will be accompanied by a modernization of the structures, equipment and systems; for long term sustainability, the use of materials and construction resulting in energy efficiencies as well the use of energy efficient equipment have been identified as essential elements of the infrastructure strategy. Solar power will also be part of the investment in environmentally friendly and sustainable energy supply for MSL.

The concept note for MSL infrastructure outlines the required infrastructure works. MSL now wishes to move this concept note a major step forward.

Within this context, this concept note needs be translated in operational documents for immediate use.

The proposed consultancies aim to provide MSL with technical support for the provision of the required reference documents by April/May 2015.

II. Objectives of the project

A team of three individual consultants (international engineer, warehouse specialist and architect/engineer) will work together to achieve the main objectives of this assignment, however each consultant will be directly responsible for individual tasks and deliverables.

The main objectives are:

1. Detail the concept and elements described in the concept note for warehouse infrastructure
2. Prepare the drawings and Bill of Quantities
3. Describe the cooling and air conditioning requirements
4. Describe the security systems requirements
5. Outline the list of additional storage and handling equipment requirements
6. Describe the energy supply and wiring / cabling requirements
7. Describe the water supply-evacuation and sanitary system requirements
8. Develop a calendar with the different activities to be carried out and the sequencing of activities
9. Translate these above requirements into Statements of Work for tender purposes
10. Provide one or two scale model of the store as per final result after the completion of the works

1. Detailing the concept

1.1. The individual stores/phases:

- ✓ For the central store phase one (1)
 - Clearly situate and specify the sizes and dimensions of the dispatch area and loading docks
 - Describe and quantify the equipment required for storage, dispatch, overall packing and, picking and packing lines for the primary health care distribution (to replace the kit system) and determine where to locate this equipment in this part of the store
 - Determine and design the racking area

- Eventually adapt the size of the store to accommodate the maximum number of pallet rack lanes
- ✓ For the central store phase two (2)
 - Identify the size and location of the area (three dimensions: surface and levels) for bulk storage within the space to be constructed in this phase
 - Do the same for the area for racked storage
 - Provide a layout of the racking area
 - Identify the size and location of the receiving area
 - Describe and quantify the equipment required for receiving and storage, and determine the exact location for this equipment in this part of the store
- ✓ For the central store phase three (3)
 - Identify the area for racked storage
 - Provide a layout of the racking area
 - Identify the size and location of the receiving area
 - Describe and quantify the equipment required for receiving and storage
 - Determine the exact location for this equipment in this part of the store
 - Define the areas for charging of the electrical equipment stackers, bar code readers etc.
- ✓ The cold store
 - Describe the stores layout (surface and levels)
 - Provide a list of equipment requirement, and the equipment to be transferred from the current store as well as EPI
 - Propose energy supply, alarm and back-up systems
- ✓ Dangerous goods store
 - Provide a layout and specific construction requirements for this store
 - List the equipment required and
 - Situate the equipment within this store
- ✓ Existing store
 - Identify how the traffic of goods will articulate in the overall store building and between new and existing structure
 - Indicate and describe gates to be created and/or demolition of walls that need/can be done during the different stages of the works
 - Provide a list of adaptation works on floors, roofing and other that need to be done at the different phase and at the end of phase 3

1.2. The office space

- ✓ Verification of the potential to enlarge the surface and levels of the current office space and/or propose an alternative site within the compound for the construction of a new office building
- ✓ Design and describe the offices using landscape and individual offices for each level and service of MSL
- ✓ Describe temporary housing of staff that needs to relocate due to the works: old manufacturing site, prefab building or other
- ✓ Describe the sequence of activities and works linked to the relocation and construction of offices

1.3. Parking personnel vehicles

- ✓ Design the parking area for staff and visitor's vehicles
- ✓ Situate its location in the compound and
- ✓ Propose the time schedule for its construction

1.4. Parking transport vehicles

- ✓ Design the 'final' parking areas for MSL trucks, trailers and smaller transport vehicles
- ✓ Identify the locations in the compound
- ✓ Provide the timing for their construction and
- ✓ Provide the locations for temporary parking spaces during the different phases of the construction

1.5. Internal roads, circulation and gates

- ✓ Propose circulation of vehicles and persons inside the compound
- ✓ Provide the location of the internal roads and the gates for the circulation of vehicles and persons in the compound
- ✓ Describe the works required and
- ✓ Describe the sequence and calendar of the works

1.6. Miscellaneous

- ✓ List the buildings/areas that are to be demolished during the different stages of the works and specific activities
- ✓ Propose the adaptations required after demolishing these buildings
- ✓ Present a budget for these works
- ✓ Describe the fencing required to separate the different areas of circulation within the compound

2. Drawings

Prepare the drawings for the following:

- ✓ The compound surface with the new overall layout of the different elements
- ✓ Each individual building:
 - The central store divided in the current store, the additional store to be added in phase 1, the same for phase 2 and again the same for phase 3 and one for the complete warehouse at the end of the works
 - The cold store
 - The dangerous goods store
 - The central office building
 - The other buildings that will remain as is (not to be touched during these works)
- ✓ Parkings, gates, access roads and loading docks.

3. The air conditioning requirements

Provide description of the following:

- ✓ The temperature requirements for the different areas of the main stores, cold store and dangerous goods store as well as for the offices
- ✓ The internal and external insulation including the roof insulation and gates to be used
- ✓ Areas / walls where air conditioning systems can be connected

4. The security systems

- ✓ The fire prevention and firefighting requirements, system and equipment and location of all this inside the buildings and compound
- ✓ The security systems: circulation/access of goods and persons in the compound and buildings, CCTV monitoring of stores, docking stations and gates
- ✓ External lighting system inside the compound.

5. The list of additional storage and handling equipment required:

For each of the following there will be a detailed description and quantification:

- ✓ Storage:
 - Mezzanines
 - Racking
 - Shelves
 - Temperature monitoring
 - Automatic doors for internal stores movement
 - Cold rooms
- ✓ Handling equipment:
 - Stackers
 - Manual pallet carriers
 - Carts for boxes
 - Conveyor belts fixed and movable
 - Picking lines for large orders
 - Picking lines for primary health facility orders
 - Packing equipment
 - Bar code readers

6. The energy supply and wiring systems

- ✓ For the main stores
- ✓ For the cold store
- ✓ For the central office
- ✓ For the other buildings and

This will include the connection to the grid, the solar panels and related battery and inverter systems, back-up generators for main and cold stores as well as offices

The roof structure and strength will be conceived to receive large scale solar panels. The specific area and size will be determined and roof structure adapted for this part of the roof where required. Specific rooms for the battery and inverter systems will be included into the structure if and where required.

7. Water supply-evacuation and sanitary systems

MSL current water supply and evacuation system description will also need to be updated and adapted to the new infrastructure situation. The water tower will need relocation, needs for water for fire prevention and fighting and for the sanitary systems need to be secured.

The same is valid for the sewer system. Note also that docking areas will be relatively low and need proper evacuation during the rainy season.

Sanitary blocks are to be adapted to the new situation and legal requirements.

8. Calendar and sequence of activities

All activities will be indicated in an overall calendar of activities as well as a calendar for each phase of the infrastructure works.

The sequence will take into account the fact that some of the funding is time bound, the need for MSL to continue activities during the works and the need for progressive use of the new facilities by MSL in storage and office areas as well as for the complete compound.

All the above needs to be translated in reference documents to be used for the tender.

9. Scale model

The consultants will provide for a scale model as well as a tri-dimensional electronic scale model to allow for a clear understanding of the future structures and final expected result.

Note that the proposed works and documentation will take into account the national requirements.

III. Expected consultant team deliverables and results

1. Description of the different elements of the store as per above
2. Surface drawings
3. Crosscutting elements as energy supply, electricity, water, security
4. Scale models
5. ToR for tender documentation for phase 1 for both equipment and building infrastructure including BoQ where appropriate
6. ToR for tender documentation for phase 2 for both equipment and building infrastructure including BoQ where appropriate
7. ToR for tender documentation for phase 3 for both equipment and building infrastructure including BoQ where appropriate
8. Calendar of demolition, rehabilitation activities and availability of equipment per phase
9. Provide a more detailed estimated budget and areas where savings could be made using cost/efficient procedures