Site No: 1 – Alaminos/Alaminyo Mosque, Larnaca

1. INTRODUCTION

The Mosque is located within the Alaminos/Alaminyo village (28km west of Larnaca).

The GPS identification is X: 34.807366, Y: 33.436340. The following figures show the Cadastral map (available on a scale of 1:1250) and the satellite view of the Mosque.

The area of the plot boundaries is 925m², and the built space of the Mosque is approx. 100m². A lost building appearing on cadastral maps adjacent to the west side of the Mosque (indicated as SchoolTurkish) is 30m².

The Mosque is easy to access, situated within the village's historic fabric. It is surrounded by main asphalt roads and a large empty plot to the north. The Mosque is kept locked.
2. DESCRIPTION OF WORKS

2.1. Description of the Interventions – Summary

- A Primaries including mobilization and contractor facilities, sanitary facilities, Health & Safety measures, signboard,
- B Intervention around Courtyard (front and back) including removal of vegetation, trimming of trees, installing drainage and repairing perimeter beams
- C Repairing the external and internal walls surface of the building, including removing wall mortar, replastering applying water-based paint and renovating walls stone surface.
- D Treatment of the cracks through grouting or stitching method.
- E Repair the building's external roof, install gutters, and repair eaves.
- F Opening treatment of doors, windows, and metal grilles
- G Cleaning and repairing the floor of the building
- H Yard and back yard, cleaning, reformation of soil and levelling
- I Others and provisional sum including expertise and information panel sign

2.2. Description of Actions

The intervention and works description are linked to the Price Schedule. The work items include materials, equipment, machine, tools, etc., workmanship, horizontal and vertical transportation and unloading on the construction site, and the Contractor’s profits and overheads unless stated otherwise.

The interventions items are detailed and described hereafter:

A. Preliminary and General Items

The corresponding Preliminary and General Items are presented in the general conditions of the Contract and include the following actions:

- P1-a: Mobilization, Contractor’s facilities
- P1-b: Sanitary facilities (chemical WC)
- P1-c: Health & safety requirements
- P1-d: Signboard during the Construction works

B. Intervention around the perimeter of the building

Item No P1-01

**Definition:** Removal of vegetation growth and cleaning vegetation with herbicide from all kinds of grounds and surfaces around the building perimeter.

**Description:** To prevent floral deterioration and vegetation formation, 200 ml herbicide shall be mixed with 16 lt water. This mixture shall be applied in the amount that it will be sufficient for 100 m2. During this application, special care must be taken not to damage existing buildings’ existing elements. The mixture will be applied to the undesired vegetation roots by wetting them evenly. Mixture shall not be applied to at least 50 cm at the perimeter of the root of vegetations required to be protected and maintained. Vegetations wastes shall be disposed of in a suitable place outside the construction site.

Item No P1-02

**Definition:** Trimming of trees that are near the building and cleaning of woody plants with a trunk diameter of 10-20 cm (including 20 cm) on all types of facades and floors.
**Description** Following best practices, cleaning of woody vegetations and branches of trees which touches and damages elements of building such as roof, dome, façade, floor etc. Operation shall be carried out with utmost attention not to damage any original building element. Waste vegetation shall be transported and disposed of at a suitable location.

**Item No P1-03**

**Definition** Drainage work at the perimeter of the foundations of the building:
- Install drainage, including excavation of soil of any kind, to install a 200 mm diameter PVC-based corrugated drainage pipe embedded in gravel with appropriate gradation for drainage purposes.

**Description**:
- Before commencing drainage work, a simple design that indicates locations, levels, lengths, discharge points, and appropriate gravel selected for the proper drainage system shall be submitted for approval.
- After approval without damaging any structure, excavation of all kinds of soil until the level given in the relevant documents. Transportation and storage of all excavated material to a suitable location. Execution of lean concreting (thickness of 10cm) of trench bottom before drainage pipe installation. After curing lean concrete, Ø 200 mm nominal diameter PVC-based corrugated drainage pipes shall be installed in the trench prepared for drainage.
- Providing gravel with appropriate gradation fit for drainage purposes under the approved design and its details, manually placing it into the trench in layer with thickness not more than 20 cm, backfilling and reinstatement of the surface.

**Item No P1-04**

**Definition** Repair of perimeter beam (stone and concrete) and insulate:
- Construction of flat or curved slabs with 1-2 cm joints by using freestones having a thickness of 5-8 cm (8 cm included), a width of 30 – 50 cm and at any length and cement mortar (Stone hardness less than 1.5) including coursed stone made of travertine and shelly limestone (cost of processability and face forming included)

**Description**:
- Under best practices, gaps for joints shall be between 1-2 cm. Stones will be placed with cement mortar, and necessary slopes shall be given. Vertical joints shall be made in order and required patterns. The remaining mortar on the surface of the floor shall be cleaned with fine-toothed hand combs without damaging the surface.
- This pavement will be constructed at the perimeter of the existing foundation at the width of 1.5 m to prevent water ingress into the structural elements of the building.

**C Wall external and internal surface of the building, including Buttress, Arches, niche, etc.**

**Item No P1-10**

**Definition** Removal of loose and deteriorated gypsum plasters externally, internally, and on all surfaces:
- Diligently scraping stone walls’ mortar without damaging the original surface of the stones and ground of underlying original element to uncover the original ground and without leaving any residue on the surface (0-5cm)

**Description**:
- Following best practices, scraping could be done with mechanical tools or brushes with the condition that no residue shall remain on the surface. Wastes shall be transported and disposed to a suitable place.
**Item No P1-11**

**Definition:** Replastering with one finishing coat of fine plaster, a finishing coat of plaster with dosage 500 of hydraulic lime mortar

**Description:** Cleaning and washing of the surface to be plastered and final coating of approximately 1.2 cm thickness with 500 dosage of hydraulic lime mortar. A sponge or a steel trowel shall be used to create a smooth surface.

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**Item No P1-12**

**Definition:** Application of two coats of water-based mat paint after priming and plastered surfaces.

**Description:** The following works shall be done in order after sanding, grinding, and cleaning the surface to be painted.

- Application of 0.075 kg water-based prime coat and 0.350 kg paste,
- The surface shall be sanded before application of the first layer of paint,
- Application of 0.100 kg water-based matte paint of selected colour as the first layer. The colour shall be agreed.
- Application of 0.100 kg water based matte paint of selected colour as second layer.

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**D. Cracks treatment on Arche and wall**

**Item No P1-20**

**Definition:** Treatment and repair of cracks through grouting method including:

- Preparation of cracks for injection with hydraulic binding lime mortar.
- Filling of the cracks and/or voids, which are made ready for injection, with hydraulic binding lime injection (up to 5 tons)

**Description:** For repair of cracks occurred in the elements (walls, arches, domes, vaults, column stones etc.) of structural stone or brick walls.

- Plaster scraping and/or grooving in the area approximately 10 cm wide along the crack,
- Drilling of holes at staggering position from both sides of the crack plane along the crack. At least four holes shall be drilled per q meter. The diameter of the hole shall be selected in accordance with the width of the crack.
- Cleaning the drilled holes from dust and other free particles by using a ventilated compressor,
- Placing the injection hoses,
- To ensure tightness during injection, cracks and perimeter of the injection hose shall be sealed with NHL 3.5 class hydraulic lime mortar,
- Before starting injection, 24 hours shall elapse, which is needed to strengthen the sealant.
- Wetting the drilled holes before starting the injection.

Hydraulic binding lime injection (density of the injection is 1780 kg/m3) is mixed with a low-speed drill until it is homogenized. The following steps shall be applied respectively;

- Injection shall start from the lowest hose and continue until injection comes out from another hose. The injection machine shall exert a maximum of 2 bar.
• The first hose filled with injection shall be closed before starting the second-lowest hose injection.
• After completion of injection for all hoses and injection gained its strength, all hoses outside shall be cut.
• To control voids/cracks before injection and verify the filling of voids/cracks with non-destructive methods, one test per 50 m² and at least 3 in total shall be carried out on the injected area.

**Item No P1-21**

**Definition**: Treatment and repair of cracks through stitching method. Stitching of standard brick and/or stone domes, vaults, arches, and similar building elements with hydraulic lime and pozzolan added injection.

**Description**: Under best practices, the opening of locations is to be stitched a maximum of 40 cm in width without disturbing the original appearance of the building. The opening shall be adequately cleaned and filled up with existing material and other appropriate material in consistent with current structure patterns. Possible voids that remain behind material shall be filled with hydraulic lime and pozzolan added injection.

**E. Roof and repairs for rainwater management**

**Item No P1-30**

**Definition**: Inspection of the roof and collection of all types of roof tiles, ridges and other roof elements and bringing them back to useable conditions and mounting them to original places.

**Description**: Following best practices, roof tiles and other elements shall be collected carefully without damaging them. All elements of the roof shall be treated on the roof as much as possible and mounted with due care. If it is not possible, they shall be stacked on the construction site appropriately and protected. All traces of plasters shall be removed from surfaces of elements, and they shall be brought back to good conditions and then installed on the roof.

**Item No P1-31**

**Definition**: Surface of eaves, installation of planed wood under and on the vertical surface of eaves.

**Description**: Under best practices, installing second-grade pine timber elements under and on the vertical surface eave makes horizontal and vertical faces. The thickness of the timber shall be 22 mm. The width of the timber shall be the same as with the existing one or 15 cm, whichever is more suited to the current conditions. Timber elements shall be tongued and grooved, corded, and have one planed surface.

**Item No P1-32**

**Definition**: Rainwater management, Supply and Installation of collared monobloc rain gutters (no joints) and vertical downpipes with a fabricated, dyed galvanized sheet of 0,5 mm
Description  : Fabrication and installation of rain gutters from one corner to other without any joints. Material shall be hot-dip galvanized and dyed with a fabricated roller painting system. Outer surfaces shall have a minimum of 5-micron epoxy—installation of strainer made of galvanized wire zinc. Rain gutters shall be fixed with three galvanized 5x30 mm iron hooks per meter. Supply and installation of vertical downpipes with a 7x8 cm section. Downpipes shall be fixed to the wall with fixing hooks at each 3 m. All elbows and other connection elements are included. Rainwater collected from the roof shall be discharged to the drainage system to be constructed at the perimeter of the existing foundation in the scope of this work package.

F. Opening - Treatment of windows and door

Item No P1-40
Definition  : Repair of elements of wooden doors and windows
Description: According to best practices, damaged parts of doors and windows shall be curved or cut as appropriate. The element shall be repaired or replaced. Any voids will be filled with walnut or similar trees in suitable forms. As binding agents, dowels and hot glue shall be used. After these steps, added parts shall be sand-papered to obtain flawless and smooth surfaces.

**Item No P1-41**

**Definition**: Application of three coats of water-based polyurethane resin with two components and semi matte varnish which has scratchproof certificate pursuant to EN 15186 to all-timber elements located inside of the building.

**Description**: Following best practices, apply three coats of water-based polyurethane resin with two components and semi-matte varnish to all-timber elements located inside the building. Varnish shall have a scratchproof certificate under EN 15186. At least 24 hours shall elapse from implementing the first layer before starting the subsequent layer. The surface of the previous layer must be sand-papered with sand-paper no.220 before beginning the next layer.

**Notes**:  
- Varnish can be diluted 2-3% with potable water in very hot weather.
- The hardener is added gradually while mixing the varnish with the help of a stick or spatula. Mixing shall be done slowly. If a measuring cup is to be used, care should be taken to ensure that the container in which the hardener is placed is dry and clean. Mixing is stopped when the addition of the hardener is completed. Varnish shall be rested for 10 minutes before starting the application. The life of the mixture is 5 hours; thus, the application must be completed within this period.
- In the first coat application, the varnish is applied on the surface, first transversely and then longitudinally, without scanning too much. Thus, an equal and sufficient varnish will be applied to the surface.
- Twenty-four hours must elapse between the application of two subsequent layers. The surface of each layer shall be sand-papered before implementing another layer.

The building shall be ventilated in order to allow the treated surface to dry.

**Item No P1-42**

**Definition**: Preparation and painting of metal grilles, Preparation of metal parts including doors and window grills for priming and painting, including repairing, cleaning, and sand-papering etc.

**Description**: Sandpapering and wire brushing of the metal parts including stair railings, doors and window grills. After rough mechanical cleaning, chemical cleaning is performed with a paint remover. The Contractor shall investigate the original colour of the element. The colour of the new paint shall be agreed. Applying two coats of anticorrosive and two coats of synthetic painting to metal elements, including gates and window grills.

**Item No P1-43**

**Definition**: Repair stone frames for doors and windows and cleaning of flat and curved volcanic freestones with volcanic stone dust under low pressure.

**Description**: Following best practices, volcanic stone surfaces shall be cleaned with sandblasting method for cleaning operation. Chemicals shall not be used. Surface shall not be damaged during
cleaning, and the procedure shall be performed with a low-pressure sensitive cleaning method. Cleaning of paint, graffiti, soot occurred because of fire, lichen etc.

### G-Internal Building Floor

**Item No P1-50**  
**Definition**: Cleaning of existing slabs made of artificial stone or marble.  
**Description**: First, mortar residues, stains and other kinds of dirt shall be cleaned from the surface of the artificial stone or marble floor. After this cleaning operation, the surface shall be wet wiped with a mosaic wiping machine.

### H-Yard / Surrounding Area

**Item No P1-60**  
**Definition**: Cleaning the yard and its surrounding area of the building from vegetation, debris and other foreign objects and transportation to disposal.  
**Description**: Cleaning the building’s surroundings, including all kinds of labour, materials, machinery, tools, kits and all other necessary equipment and workers on the Jobsite without damaging any parts of the original building. Transportation and storing them in an appropriate place, and performing all other works other than those stated in this document.

**Item No P1-61**  
**Definition**: Reformation of degraded soil at the west side with appropriate imported soil and levelling around the area at its final level.  
**Description**: Remove all kinds of degraded material, including soil, debris, and other foreign objects, and import appropriate soil for reformation, degraded soil to disposal.

**Item No P1-62**  
**Definition**: Levelling of existing soil as required of any kind in the yard and its perimeter, removal including debris and foreign object if any to disposal.  
**Description**: Cleaning of the area from roots, herbs and other inappropriate material. Moving natural soil to the site to be filled, levelling and compaction of ground with hand tools. The thickness of each layer shall not exceed 20 cm.

### I – Others

**Item No P1-70**  
**Definition**: Expertise: Strengthening of the Building with interventions after structural design.  
**Description**: It has been determined that the previous strengthening works on the structure were unsuccessful. A detailed site investigation shall be made to record all conditions of building elements such as arches, buttress, foundation walls etc. It is important to note that this investigation should be performed before starting any Conservation works. Based on the investigation to be carried out, a comprehensive structural design solution shall be proposed by a specialist in the field, which will extend the lifetime of the building.
Item No P1-71 Definition

Information Sign: Supply and Installation of the mosque

Information panel

Description: Supply and installation of a panel having a size of 80x150 cm. Frame shall be made of box profiles, and both panel surfaces shall be made of 0.5 mm sheet metal. Approval shall be obtained for font and size of the text, design of the panel and colour etc. The pillar of the board shall be made of galvanized steel.
3. PHOTOS
The indicatives pictures of the Alaminos Mosque are presented hereafter.

**General view – External and internal**

View from the west (street view)  
View from the south-west (street view)

View from south (street view)  
View from the south-east (street view)

View from south-east (street view)  
View from north-east (street view)
B- Internal View

Prayer hall view to the west
Prayer hall view to the east
Prayer hall view to the south
Prayer hall view to the north

A - Roof & Rainwater management

Pitched roof covered with French tiles. Internally ceiling is made of chipboard. Timber beams TBC
B - Walls – External and internal

External Surfaces – Walls, Buttresses – gypsum-based plaster.
Internal Wall Surfaces – gypsum-based plaster. Type of masonry not identifiable due to rendering. Arches covered with render as well.

C - Opening – Door and windows

Door – Main entrance door on the Eastside. Two wooden leaves painted in light grey colour with door handle and lock.
Windows – Three rectangular-shaped windows with stone frames, double wooden leaves, and metal grilles decoration. All windows are located on the Southside. Deterioration of horizontal lower section of wooden frames.
D - Floor

**Floor** – Gypsum marble tiles of different size and shape.

<table>
<thead>
<tr>
<th>E- Special Elements</th>
<th>Mihrab and niche</th>
<th>Fountain –SE corner</th>
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<tr>
<td><img src="image1" alt="Mihrab" /></td>
<td><img src="image2" alt="Fountain" /></td>
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</table>

F – Surrounding, perimeter wall and fencing

The surrounding area, external yard

![Surrounding Area](image3)
Perimeter wall & Fencing – Chicken fence with simple metal gate with a locker on the Eastside. Wooden fence on the Southwestern sides.
Site No: 2 – Kalavasos/Kalavason Mosque, Larnaca

INTRODUCTION

The Tochni Mosque is located within the Kalavasos village (40km from Larnaca, 30km from Limassol). The GPS identification is X: 34.772138, Y: 33.295421. The following figures show the Cadastral map Sheet/plan: 55/4302V01, Block:01, Parcel Number: 240.

Figure 1 – Cadastral Map - Sheet/plan: 55/4303V01, Block:01, Parcel Number: 240

Figure 2 – Satellite view
The area of plot no 240 is 465 m², and the built space of the Mosque, including Portico and Minaret is approx. 110 m². Trace for an area of a school (not part of the yard) is approximately 32m².

The Mosque is easy to access, situated within the village centre of Kalavaso, but there is no parking in close vicinity. The Mosque is kept locked.

1. DESCRIPTION OF WORKS

2.1 Summary of interventions

- A Primary and General items including Mobilization and Contractor facilities, Sanitary facilities, Health and safety Measures, sign Board and scaffolding,
- B Intervention around the Building, including removal of vegetation on walls, cleaning and trimming woody plants on all facades, improving and/or constructing a drainage system, installing a rainwater channel with grilles in front of the Portico
- C Repairing the Building's external and internal walls surface, including removing wall mortar, replastering applying water-based paint, and renovating walls stone surface.
- D Treatment of the cracks through grouting or stitching method.
- E Repair the external roof of the Mosque and Portico
- F Improving, repairing, painting all wooden elements, including door windows and ceilings.
- G Cleaning and repairing the floor of the prayer hall and portico.
- H Improve the yard/Backyard, including removing pavement, repairing the small retaining wall, preservation of historical artefacts, levelling the yard and scraping the stone wall each site of the entrance gat.
- I Improve the Minaret external walls, paint the balcony, install metal top and bird screens, clean the inside and repair the platform and stairs access.

2.2 Detailed Works Description

The intervention and works description are linked to the Price Schedule. The work items include materials, equipment, machine, tools, etc., workmanship, horizontal and vertical transportation and unloading on the construction site, and the Contractor's profits and overheads unless stated otherwise.

The interventions items are detailed and described hereafter:

A. Preliminary and General Items

The corresponding Preliminary and General Items are presented in the general conditions of the Contract and include the following actions:

<table>
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<tr>
<th>Item</th>
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<td>P4-a</td>
<td>Mobilization, Contractor’s facilities</td>
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<td>P4-b</td>
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<td>P4-d</td>
<td>Signboard during the Construction works</td>
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<tr>
<td>P4-e</td>
<td>Install fully secure scaffolding made of pre-built components as needed for works on walls inside and outside.</td>
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</tbody>
</table>

**Notes:** Scaffolding to be installed shall comply with all relevant H&S laws, regulations and specifications. The elements to be used is made of wood, pre-built steel, or aluminium alloy shall be fully in compliance with applicable local rules and specifications for these materials. The scaffolding's load bearing capacity shall be selected based on nature and extent of the works. The Contractor shall provide a design before the erection of scaffolding. The construction of the scaffolding shall be supervised by an employee of the Contractor who is certified and specialized in this kind of work.

B. Intervention around the perimeter of the Building
**Item No P4-01**

**Definition:** Removal of vegetation growth and cleaning vegetation with herbicide from all kinds of grounds and surfaces around the building perimeter wall, the Portico floor and the west side of the Mosque.

**Description:** In order to prevent floral deterioration and vegetation formation, 200 ml herbicide shall be mixed with 16 lt water. This mixture shall be applied in the amount sufficient for 100 m². During this application, special care must be taken not to damage buildings’ existing elements. The mixture will be applied to the undesired vegetation roots by wetting them evenly. Mixture shall not be applied to at least 50 cm at the perimeter of the root of vegetations required to be protected and maintained.

Suppose vegetation formation continues at the time of taking over the works or three months from the first application of the mixture, whichever is later, despite the application of herbicides, the application of the mixture shall be repeated as much as needed. Vegetations wastes shall be disposed of in a suitable place outside the construction site.

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**Item No P4-02**

**Definition:** Trimming of trees that are near the Building and cleaning of woody plants with a trunk diameter of 10-20 cm (including 20 cm) on all types of facades and floors.

**Description:** Following best practices, cleaning of woody vegetations and branches of trees which touches and damages elements of building such as roof, doom, façade, floor etc. Operation shall be carried out with utmost attention not to damage any original building element. Waste vegetation shall be transported and disposed of at a suitable location.

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**Item No P4-03**

**Definition:** Drainage work and pipeline to discharge point at the road in the yard between the Mosque and adjacent structure, including excavation of soil of any kind, to install a 200 mm diameter PVC-based corrugated drainage pipe embedded in gravel with appropriate gradation for drainage purposes.

**Description:** Before commencing drainage work, a simple design that indicates locations, levels, lengths, discharge points, and appropriate gravel selected for the proper drainage system shall be submitted for approval.

After approval of the submitted drainage design, lean concreting (thickness of 10cm) of trench bottom before drainage pipe installation. After curing lean concrete, Ø 200 mm nominal diameter PVC-based corrugated drainage pipes shall be installed in the trench prepared for drainage.

Excavation of all kinds of material, including soil, debris, and other foreign objects. The Contractor shall follow the directives for the performance of this work.

The Contractor shall arrange topsoil to create a natural drainage surface. This unit price also covers provision and installation of geotextile to round up hole drainage system. The weight of the geotextile shall be 250 gr/m². Both ends of the geotextile shall overlap 10 cm at the top middle of gravel.

Providing gravel with appropriate gradation fit for drainage purposes under the approved design and its details, manually placing it into the trench in layers with thickness not more than 20 cm, backfilling and reinstatement of the surface.
**Item No P4-04**

**Definition**: Supply and installation of spheroidal cast-iron rainwater channel with grilles (width: 30cm, thickness: 3.5cm, Length: approx 10m)

**Description**: Supply and installation of spheroidal cast-iron rainwater channel following relevant specifications and in line with approved drainage design. The width of the channel shall be 30 cm, and its thickness shall be 3.5m. Length can be 10m or any other length based on approved drainage design. The downpipe of Portico’s roof shall be extended to this channel for discharge.

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**C. Wall external and internal surface of the Building, including Buttress, Arches, etc.**

**Item No P4-10**

**Definition**: Removal of loose and deteriorated wall mortar plasters externally and internally on all surfaces. Diligently scraping stone walls’ mortar without damaging the original surface and without leaving any residue on the surface (0-5cm)

**Description**: In accordance with best practices, carefully scraping plasters (0-5 cm, 5 cm included) from surfaces of stone walls without the damaging surface of the stones and ground of the underlying original element to uncover the original ground. Scraping could be done with mechanical tools or brushes with the condition that no residue shall be remained on the surface. Wastes shall be transported and disposed of to a suitable place as proposed by the Contractor.

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**Item No P4-11**

**Definition**: Replastering with one finishing coat of fine plaster, a finishing coat of plaster with dosage 500 of hydraulic lime mortar

**Description**: Cleaning and washing of the surface to be plastered and finishing coating of approximately 1.2 cm thickness with 500 dosage of hydraulic lime mortar. Sponge or steel trowel shall be used in order to create a smooth surface.

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**Item No P4-12**

**Definition**: Application of two coats of water-based mat paint after priming plastered surfaces.

**Description**: After sanding, grinding and cleaning of surface to be painted, following works shall be done in order;

- Application of 0,075 kg water based prime coat and 0,350 kg paste,
- Surface shall be sanded before application of first layer of paint,
- Application of 0,100 kg water based matte paint of selected colour as first layer. Colour shall be agreed.
- Application of 0,100 kg water based matte paint of selected colour as second layer.

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**Item No P4-13**

**Definition**: Make of grooves in the rubble stone external walls of Mosque which are not plastered originally and having cement mortar or cement-reinforced mortar and making new joints in the stone wall with hydraulic lime mortar of 500 dosages.
Description: According to best practices, the opening groove (up to 5 cm) in the stone wall having cement or cement reinforced mortar. Corners of the stones shall not be damaged during this process. Vegetations shall be removed from the surface of the wall if any. Groove shall be adequately cleaned and made ready for new plastering. Before the start of making new joints, grooves shall be wetted. Joints shall be made the same as existing ones, a trial section shall be prepared. Works shall continue after consent is obtained for the trial section. Mortar shall be hydraulic lime mortar with 500 dosages. Brush shall not be used to shape surface of joints in order to keep stone surfaces clean. Instead, surface of the joint shall be formed and made smooth by pressing the tip of a steel trowel. In any case, after completion of joints, surfaces of stones shall be cleaned from residual of mortar. Joints shall be watered at 8 hours intervals until it completes its hardening.

D. Cracks treatment on Arche and wall

Item No P4-20

Definition: Treatment and repair of cracks through grouting method including:
   i. Preparation of cracks for injection with hydraulic binding lime mortar.
   ii. Filling of the cracks and/or voids, which are made ready for injection, with hydraulic binding lime injection (up to 5 tons)

Description: For repair of cracks occurred in the elements (walls, arches, domes, vaults, column stones etc) of structural stone or brick walls;
   • Plaster scraping and/or grooving in the area approximately 10 cm wide along the crack,
   • Drilling of holes at staggering position from both sides of the crack plane along the crack. At least four holes shall be drilled per q meter. Diameter of the hole shall be selected in accordance with width of the crack.
   • Cleaning the drilled holes from dust and other free particles by using a ventilated compressor,
   • Placing the injection hoses,
   • In order to ensure tightness during injection, cracks and perimeter of injection hose shall be sealed with NHL 3.5 class hydraulic lime mortar,
   • Before starting injection, 24 hours shall elapse which is needed for strengthening of sealant.
   • Wetting the drilled holes before starting the injection.

Hydraulic binding lime injection is mixed with a low-speed drill until it is homogenized. The following steps shall be applied respectively;
   • Injection shall start from lowest hose and continued until injection comes out from another hose. Injection machine shall exert maximum 2 bar.
   • First hose which is filled with injection shall be closed before starting injection of second lowest hose.
   • After completion of injection for all hoses and injection gained its strength all hoses at outside shall cut.
   • In order to control voids / cracks before injection and verify filling of voids / cracks with non-destructive methods, one test per 50 m2 and at least 3 in total shall be carried out on the injected area.
**Item No P4-21**

**Definition**: Treatment and repair of cracks through stitching method. Stitching of standard brick and/or stone domes, vaults, arches, and similar building elements with hydraulic lime and pozzolan added injection.

**Description**: Following best practices, the opening of locations to be stitched a maximum of 40 cm in width without disturbing the original appearance of the Building. The opening shall be appropriately cleaned and filled up with existing material and other appropriate material consistent with an existing structure’s patterns. Possible voids that remain behind material shall be filled with hydraulic lime and pozzolan added injection.

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**E. External Roof repairs – Mosque and Portico**

**Item No P4-30**

**Definition**: Inspect the entire roof to detect any broken/missing/loose roof tiles, collect all types of roof tiles, ridges, and other roof elements, bring them back to useable conditions, and mount them to original places.

**Description**: In accordance with best practices, roof tiles and other elements shall be collected carefully without damaging them. All elements of roof shall be treated on the roof as much as possible and mounted with due care. If it is not possible, they shall be stacked in appropriate place in the construction site and protected. All traces of plasters shall be removed from surfaces of elements and they shall be brought back to good conditions and then installed on the roof.

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**F. Wooden Elements – Opening Door, wooden floor and ceiling**

**Item No P4-40**

**Definition**: Preparation and painting of metal parts including doors and window grilles for priming, including repairing, cleaning and sandpapering etc., and applying two coats of anticorrosive and two coats of synthetic painting to metal elements, including gates and window grilles.

**Description**: Sandpapering and wire brushing of the metal parts including doors and window grilles. After rough mechanical cleaning, chemical cleaning is performed with a paint remover. The Contractor shall investigate the original colour of the element. The colour of the new paint shall be agreed.

Application of two layers of anticorrosive paint, each with 0,15 lt. After finishing the anticorrosive painting layers, apply two layers of synthetic paint, each with 0,15 lt.

**Item P2-41**

**Definition**: Application of three coats wooden elements doors, windows, shutters and ceiling of water-based polyurethane resin with two components and semi-matte varnish, which has scratchproof certificate according to EN 15186 to all-timber elements located inside the Building.
Description: In accordance with best practices, application of three coats of water based polyurethane resin with two components and semi matte varnish to all timber elements located inside of the Building. Varnish shall have scratchproof certificate pursuant to EN 15186. At least 24 hours shall elapse from implementation of first layer before starting the subsequent layer. Surface of the previous layer must be sandpapered with sandpaper no.220 before starting the subsequent layer.

Notes:
- Varnish can be diluted 2-3% with potable water in very hot weather.
- The hardener is added gradually while mixing the varnish with the help of a stick or spatula. Mixing shall be done slowly. If a measuring cup is to be used, care should be taken to ensure that the container in which the hardener is placed is dry and clean. Mixing is stopped when addition of hardener is completed. Varnish shall be rested for 10 minutes before starting application. Life of the mixture is 5 hours thus application must be completed within this period.
- In the first coat application, the varnish is applied on the surface first transversely and then longitudinally, without scanning too much. Thus, an equal and sufficient amount of varnish will be applied to the surface.
- 24 hours must elapse between application of two subsequent layers. Surface of each layer shall be sandpapered before implementation of other layer.

The Building shall be ventilated to allow the treated surface to dry.

Item item P4-42
Definition: c. repair of elements of wooden doors, windows and shutters: Repair localized peeling of the paint from the surface of wooden windows and the deteriorated horizontal lower section of wooden frames. Clean and repair metal elements and/or replace any missing or defective ironmongery.

Description: According to best practices, damaged parts of doors and windows shall be curved or cut as appropriate. The element shall be repaired or replaced. Any voids will be filled with walnut or similar trees in suitable forms. As binding agent dowels and hot glue shall be used. After these steps, added parts shall be sandpapered in order to obtain flawless and smooth surfaces.

G—Floor of Prayer and Portico

Item No P4-50
Definition: Prayer Hall Cleaning existing slabs made of artificial stone or marble and replacing the damaged tiles if any.

Description: First, mortar residues, stains and other kinds of dirt shall be cleaned from the surface of the artificial stone or marble floor. After this cleaning operation, the surface shall be wet wiped with a mosaic wiping machine.

Item Item P4-51
Definition: Portico Removal of pavement made of screed concrete, stone with mortar and other similar surfaces, and construction of flat or curved slabs with 1-2 cm joints by using stones identical/similar to existing one having a thickness of 5-8 cm (8 cm included), a width of 30 – 50 cm and at any length with hydraulic lime mortar (Stone hardness less than 1,5).

Description: Removal of deteriorated, lose or hard surfaces such as screed, marble stone etc. with mortar for locations. This work must be done diligently in order not to damage any element.
of existing Building. These locations shall be thoroughly cleaned after completion of removal of made hard surface.

In accordance with best practices, construction of flat or curved slabs with stones same / similar to the original one and having hardness less than 1.5. Size of the stone shall be as follow:

- Thickness: 5 to 8 cm, (8 cm included), Width: 30 to 50 cm, Length: any
- Gaps for joints shall be between 1-2 cm. Stones will be placed with hydraulic lime mortar and necessary slopes shall be given. Vertical joints shall be made in order and required patterns. Remaining of mortar on the surface of the floor shall be cleaned with fine toothed hand combs without damaging surface. Provision of stones / tiles are included in the unit price.

### H-Yard / Backyard

**Item Item P4-60**

**Definition:** Removal of pavement made of screed concrete, stone with mortar and other similar surfaces on the floor of the yard

**Description:** Remove deteriorated, loose or hard surfaces such as screed, marble stone, etc, with mortar for determining locations. This work must be done diligently not to damage any element of the existing Building. These locations shall be thoroughly cleaned after completion of removal of made hard surface.

**Item No P4-61**

**Definition:** Small retaining wall, workmanship for the construction of stone walls with hydraulic lime mortar of 500 dosages. Make grooves in the rubble stone wall with cement or cement-reinforced mortar and make new joints in the stone wall with hydraulic lime mortar of 500 dosages. Supply of coursed stone made of travertine and shelly limestone (cost of processability and face forming included).
According to best practices, opening groove (up to 5 cm) in the stone wall having cement or cement reinforced mortar. Corners of the stones shall not be damaged during this process. Vegetations shall be removed from the surface of the wall if any. Groove shall be adequately cleaned and made ready for new plastering.

Before the start of making new joints, grooves shall be wetted. Joints shall be made the same as existing ones, a trial section shall be prepared. Works shall continue for trial section. Mortar shall be hydraulic lime mortar with 500 dosages. Brush shall not be used to shape surface of joints in order to keep stone surfaces clean. Instead, surface of the joint shall be formed and made smooth by pressing tip of a steel trowel. In any case after completion of joints surfaces of stones shall be cleaned from residual of mortar. Joints shall be watered with 8 hours interval until it completes it hardening.

Provision of stone with the same /similar properties as the existing stones, in the requested form, including transporting material to the site. Investigation to find out origin of the stone may be needed in order to find the proper material.

Construction of stone wall with existing stones or from a quarry / source which has same /similar type of the stone. Hydraulic lime mortar shall be used as binding agent. Stones shall be in stagger position and width of joints shall not be more than 4 cm. Small sized stones shall be used instead of using plenty of mortar.

**Item P4-62**

**Definition:** Preservation of historical artefacts (capping) in the School in plot 241 with hydraulic lime mortar of 500 dosages.

**Description:** According to directives and in line with best practices, crushed stones shall first be placed on the structure. Then, voids between crushed stones shall be filled carefully with hydraulic lime mortar of 500 dosages. Mortar shall be smoothed with trowel. Stone surfaces shall be cleaned from residual mortars.

**Item P4-63**

**Definition:** Levelling of surface and backfilling of ditches and other areas by hand as required of any kind in the yard and its perimeter, removal including debris and foreign objects.

**Description:** Cleaning of the area from roots, herbs and other inappropriate material. Moving natural soil to the area to be filled, levelling and compaction of soil with hand tools. Thickness of each layer shall not exceed 20 cm.

The Contractor to arrange topsoil in order to create a natural drainage surface. In that case, the Contractor shall do necessary backfilling for such purpose, and he will be paid under this unit price for this backfilling.

**Item P2-64**

**Definition:** Diligently scraping of stone walls' mortar on each side of the entrance Gate, without damaging the original surface and without leaving any residue on the surface (0-5cm).
**Description**: Following best practices, carefully scraping plasters (0-5 cm, 5 cm included) from surfaces of stone walls without damaging the surface of the stones and ground of underlying original element in order to uncover the original ground. Scraping could be done with mechanical tools or brushes with the condition that no residue shall be remained on the surface. Wastes shall be transported and disposed to a suitable place as proposed by the Contractor.

<table>
<thead>
<tr>
<th><strong>I – Minaret</strong></th>
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<tbody>
<tr>
<td><strong>Item No P4-70</strong></td>
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<tr>
<td><strong>Definition</strong>: Reassemble existing doors of the entrance of the Minaret and Balcony, supply and installation of a new standard door made of first quality pitch pine with a frame having 7 cm thickness</td>
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<tr>
<td><strong>Description</strong>: Removal of existing doors and provision of new doors same / similar to the existing one in addition to any detail provided with a detailed design. Plate and frame thickness shall be 7cm. All metal parts necessary for proper functioning of the door is included in the unit price</td>
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| **Item No P4-71** |
| **Definition**: Doors of the Minaret entrance and balcony, application of three coats of water-based polyurethane resin with two components and semi-matte varnish which has scratchproof certificate according to EN 15186 to all-timber elements located inside of the Building |
| **Description**: In accordance with best practices, applying three coats of water-based polyurethane resin with two components and semi matte varnish to all-timber elements located inside the Building. Varnish shall have scratchproof certificate pursuant to EN 15186. At least 24 hours shall elapse from implementation of first layer before starting the subsequent layer. Surface of the previous layer must be sandpapered with sandpaper no.220 before starting the subsequent layer |

| **Item No P4-72** |
| **Definition**: Cleaning the external surface of flat and curved volcanic freestones with volcanic nic stone dust under low pressure |
| **Description**: In accordance with best practices, volcanic stone surfaces shall be cleaned with sandblasting method for the cleaning operation. Chemical shall not be used. Surface shall not be damaged during cleaning and operation shall be performed with lowpressure sensitive cleaning method. Cleaning of paint, graffiti, and soot occurred due to fire, lichen, etc. |

| **Item No P4-73** |
| **Definition**: External wall, losing/decomposing/decaying stones at Minaret, supply of the stone identical/similar to existing stones and workmanship for construction of stonewall face (where stones are decayed) of maximum 25 cm width with hydraulic lime mortar |
| **Unit**: M2 |
Description: Decomposing / decaying of stones at minarets where dismantling and demolition is not possible. This works shall not diminish structural strength of the Minaret in any way. Elements at vicinity of the stone shall not be damaged during this operation. Depth of decaying shall be agreed. After decaying, material shall be removed and disposed at an appropriate location. Decayed section then shall be cleaned and washed properly. All H&S measures shall be taken before commencement of this operation in line with local law, rules, regulations, standards and specifications. Following the best practices, construction of a curved face of the wall at the width of 25 cm (max) with stones with similar appearance and properties of existing stones to the extent possible. Corners and edges of the stone shall be mitered by using of finetooth comb. Top and bottom surfaces and surfaces of joints shall be treated with finetooth comb at least for 5 cm width. The rest will be inclined to the backwards with 10 degrees by using coarse-tooth hand comb. Joints shall be treated with appropriate saw. After all these works the stone shall be placed squarely and all gaps at the sides and behind of the stone shall be filled with hydraulic lime mortar. Surfaces shall be cleaned from residual of mortar.

**Item No P4-74**

**Definition**: The external wall surface of the Minaret, making of grooves in the rubble stone wall having cement mortar or cement-reinforced mortar and making new joints in the stone wall with hydraulic lime mortar of 500 dosages.

**Description**: According to best practices, the opening groove (up to 5 cm) in the stone wall having cement or cement reinforced mortar. Corners of the stones shall not be damaged during this process. Vegetations shall be removed from the surface of the wall if any. Groove shall be adequately cleaned and made ready for new plastering. Before the start of making new joints, grooves shall be wetted. Joints shall be made the same as existing ones, a trial section shall be prepared. Works shall continue after this trial section. Mortar shall be hydraulic lime mortar with 500 dosages. Brush shall not be used to shape surface of joints in order to keep stone surfaces clean. Instead, surface of the joint shall be formed and made smooth by pressing tip of a steel trowel. In any case after completion of joints surfaces of stones shall be cleaned from residual of mortar. Joints shall be watered with 8 hours intervals until it completes it hardening.

**Item No P4-75**

**Definition**: Waterproofing of the Floor of the Minaret Balcony, with a total thickness of 1.5 mm in 3 layers with an elastomeric resin-based liquid plastic coating material.
Description: Before the application, the surface shall be cleaned from loose, broken, cracked parts, oil, dust and similar residues that prevent adhesion. The surface then shall be washed in line with the material datasheet to be applied.

After the surfaces have dried, the first layer of elastomeric resin-based liquid plastic surface coating material is thinned with a maximum of 1/4 water and applied to the surface in the same direction by brush, roller or spraying method.

The second and third layers shall be applied perpendicularly to the first layer, and material shall be used without thinning (water shall not be added). Curing time between each layer shall be as stated in the material datasheet.

**Item No P4-76**

**Definition:** Minaret metal top, supply and installation of minaret top metal element made of copper (all sizes) and mesh to prevent birds from entering through the opening of the Minaaret.

**Description:** According to best practice supply and installation of the top metal element of the Minaret. Metal elements shall have the same size, material and patterns of the existing one. The component's base, body, and top will be produced separately with wrought or sheet copper. Those three parts shall be fitted together and mounted on a monolithic conical piece with brass welding.

**Item No P4-77**

**Definition:** Internal wall surface of the Minaret, diligently scraping of stone walls' mortar without damaging the original surface and without leaving any residue on the surface (0-5 cm) and applying a finishing / fine coat of plaster with 500 dosage of hydraulic lime mortar

**Description:** In accordance with best practices, carefully scraping of plasters (0-5 cm, 5 cm included) from surfaces of stone walls without damaging surface of the stones and ground of underlying original element in order to uncover the original ground. Scraping could be done with mechanical tools or brushes with the condition that no residue shall be remained on the surface. Wastes shall be transported and disposed to a suitable place as proposed by the Contractor.

Cleaning and washing of the surface to be plastered and finishing coating of approximately 1.2 cm thickness with 500 dosage of hydraulic lime mortar. Sponge or steel trowel shall be used in order to create a smooth surface.

**Item No P4-78**

**Definition:** Internal wall of the Minaret, application of two coats of water-based mat paint after priming plastered surfaces.

**Description:** After sanding, grinding and cleaning of surface to be painted, following works shall be done in order:

- Application of 0.075 kg water based prime coat and 0.350 kg paste,
- Surface shall be sanded before application of first layer of paint,
• Application of 0,100 kg water based matte paint of selected colour as first layer. Colour shall be agreed.
• Application of 0,100 kg water based matte paint of selected colour as second layer.

**Item No P4-79**

**Definition**  
*Construction / repair of minaret steps* with rubble stone and hydraulic lime mortar, including provision of stones.

**Description**  
Provision of stone with the same properties as the existing stones, in the requested form, including material transportation to the Site. Investigation to find out the origin of the stone may be needed to find the proper material.

In line with best practices, the existing stone must be decayed and removed correctly. New stones shall be formed and located to place in a way that fits the original structure.
3. PHOTOS

The indicatives essential pictures of the Kalavasos Mosque are presented hereafter.

The approach of the main street
The approach from the north

The approach from the south
Staircase leading to the gated yard's entrance
South Facade

View from the South-East (yard view)

View from South-west

Internal view of the Portico facing east (portal)

View from the level of the upper street running along the western side of the Mosque's plot

The south-eastern corner of the Mosque
<table>
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<th>Details of the pillars' capitals</th>
<th>Detail of the mihrab, view of the minbar</th>
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<td>Internal view of the portico-entrance to the prayer hall</td>
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<td>Internal view of the Portico- facing east access to the Minaret</td>
<td>Internal view of the Portico – facing west</td>
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<tr>
<td>Internal view facing north</td>
<td>Internal view facing west</td>
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<tr>
<td>Internal view of the roof</td>
<td>Internal view facing north-east</td>
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