



Armenian Orthodox Patriarchate

Jerusalem, 26th Dec 2015

Project: St. James Cathedral structural works & renovation

Subject: Technical Summary sheet for the St. James project –Final

According to your request and for the needs of publishing a special edited newspaper subject; here is written all the issues related to the works done for the restoration of the project with mentioning the resulted **aspects and observations**:

P.S Kindly note that the project is summarized as per its chronological order

- Ballout construction won the bid and officially awarded this to start the work by 1st July 2015. The contractor had possessed the site in the 22nd of June preparing the safety measures around the project and the buffer zone
- The contractor applied his insurance for the project as per standards and called a specialized company to guarantee any prospected damage of the old paintings
- The project parts are: the southern narthex and upper gallery structural works, the main church roof pointing and then the st menas/Stephan roofs works. The works in the mentioned parts include some internal works as mentioned in the BOQ
- The contractor spent **10 days** in covering all the pictures and paintings in the southern narthex and upper gallery which are the two basic parts in the church for restoration
- The contractor installed the scaffolding on both southern narthex and upper gallery façade for implementing the needed pointing and stone patching works.
- The contractor cleaned the southern narthex upper vaults using lime with injection for cracks
- The contractor meanwhile cleaned the upper gallery façade using water jet and removed the old pointing. Then applied the adequate lime mortar with special mixture
- The contractor removed all old pointing layers in the surrounding parts of the main church roof/dome and the st menas/stephane roofs and facades and applied new lime pointing with adequate stone patching, painting of rails etc..
- The contractor applied the needed lime pointing for all the surfaces that are renovated
- The contractor removed the pointing on the southern narthex wall and main church wall facing this roof and then applied the needed pointing

The southern Narthex(specialized restoration module):

- 1) The contractor removed the tiles after marking them for the two locations and had been stored in an appropriate location
- 2) The contractor removed the debris on the southern narthex roof until reaching the structure of the vaults.

- 3) The contractor had returned back only 30% of the good soil after applying lime grout on the structural parts found of the vaults of the southern narthex waiting for the YTONG crushed aggregate
 - 4) *Apply the steel structure as per a detailed design prepared by the expert engineer (Leonardo Di Marco) , the specialized structure solved any future building movement as per a 3D models prepared by the engineer*
 - 5) Apply the YTONG and then the concrete slab on grade
 - 6) Apply the water outlets above the concrete slab and also the isolation layer coat
 - 7) Tiles and pointing
 - 8) Building old stones walls to cover the underneath stones found during digging and install new coping stone
 - 9) Finish works on the southern narthex façade and especially the bulging walls
- **The upper Narthex(external):**
 - 1) The contractor removed the tiles after marking them for the two locations and had been stored in an appropriate location
 - 2) The contractor found a lime screed direct below the tiles in the upper gallery and this lime screed is strong enough and will not be removed
 - 3) Apply the steel connections for the roof as per design prepared
 - 4) Close well the cracks using lime injection
 - 5) Paint the roof with isolation material
 - 6) Tiling the same removed old stone tiles with appropriate slope and good pointing grout
 - **The Main church :**
 - 1) Install a well packed and closed scaffolding system for the main church vault systems' restoration and main dome works (main church deck)
 - 2) Works of removal plaster and re-plaster using special materials and mixture as specified in the BOQ details
 - 3) Motive works for the main dome from inside
 - 4) Painting works using lime wash paint
 - **The internal south Narthex & upper gallery & St Menas:**
 - 1) The contractor applied all scaffolding towers for structural stabilization for the vaults' system in the main parts of the space
 - 2) Works of removal plaster and re-plaster for the humid parts using special lime material
 - 3) Painting works for all the space after drying the surfaces. Note that the painting will be revised during the (5) *YEARS GURANTEE* provided through the contractor

General Advantages of this project:

- a) The project's implementation in its new experience was done through a well oriented design team that included structural expertise from Italy & local engineers and one architect.
- b) The management of site in front of the Israeli Antiquity authority helped to diminish any intervention of the mentioned authority on the progress of the works and save time for the dedicated time plan
- c) The architect in cooperation with the fathers succeeded to save found crosses & old inscriptions found on the stones and they are documented with the church

- d) The project was implemented within the designed scope of work and budget with not more than 10% variations occurred and approved by the Fr. Baret
- e) The contractor offered an official 5 years of maintenance guarantee to this holy site where the renovation *will be tested and maintained*

Yours,

Architect Philip Dahabreh

Armenian Orthodox Church
SAINT JAMES CATHEDRAL - RESTORATION WORKS
Old city - JERUSALEM

Summary of Totals	George Ballout
PART 1 - UPPER GALLERY - EXTERNAL	₪263,500.00
PART 1 - UPPER GALLERY - INTERNAL(WITH PROVISIONAL)	₪64,700.00
PART 2 - THE SOUTHERN NARTHEX - EXTERNAL	₪476,675.00
PART 2 - THE SOUTHERN NARTHEX - INTERNAL	₪30,800.00
PART 3 - ARCHANGELS CHURCH - EXTERNAL	₪108,150.00
PART 3 - ARCHANGELS CHURCH - INTERNAL	₪62,400.00
PART 4 - ST. MENAS AND STEPHAN - EXTERNAL WORKS (Later stage)	₪110,300.00
The Main Church Platform JOB	₪60,000.00
Consultants' Supervision, design & management	₪80,000.00
TOTALS SUMMARY	₪1,256,525.00