



Project Overview

FRP RETROFIT OF CONCRETE ROOF SLAB IN HISTORIC BUILDING

Name: LA Museum of Natural History
Type: Historic Building
Location: Los Angeles, CA
Completed: July 2007

PROBLEM

The LA Museum of Natural History, a landmark building in Los Angeles, recently underwent significant seismic retrofitting. The inclined roof slabs of the museum wings were found to be deficient in resisting in-plane seismic forces (diaphragm action) and were targeted for strengthening. The project called for a strengthening system that would not alter the existing historic features of the building.



SOLUTION

QuakeWrap, Inc. was awarded the design-build project. The ceramic roof tiles were removed from the roof and the roof slab was repaired and smoothed. Carbon FRP fabric was installed directly on the repaired roof to withstand the design in-plane seismic forces. After the FRP installation, the refurbished ceramic tiles were re-installed to cover the retrofit work and give the building its original appearance.



Technical Highlights

- Seismic retrofit of historic landmark
- Roof slabs were strengthened for in plane seismic forces
- 11,500 ft² of FRP carbon fabric was installed.

Credits

Engineering and Materials: QuakeWrap, Inc., Tucson, AZ.
FRP Installation: FRP Construction, LLC, Tucson, AZ
General Contractor: Matt Construction, Los Angeles, CA



“The FRP Retrofit Experts”