



Project Overview

FOX HISTORIC THEATRE

Location: Tucson, Arizona
Completed: April 2005

WALLS, FLOORS, & BEAMS

Built in 1929, the theatre was closed for 30+ years until a recent \$12 million renovation. Many unreinforced masonry walls and parapets, concrete beams, and the lobby floor required strengthening and waterproofing.

PROBLEM

URM walls had little shear capacity; the retrofit could not disturb the historic nature of the building. Basement beams and the lobby floor were weak and required waterproofing.

SOLUTION

QuakeWrap™ glass fabrics were used to increase the shear capacity of URM walls and flexural capacity of parapets. The floor was strengthened and waterproofed from the top with glass fabric.



Technical Highlights

- Over 7,000 ft² of URM wall was strengthened
- The lobby floor was strengthened and waterproofed in a single operation
- URM walls were converted to shear walls
- Over 8,500 ft² of QuakeWrap™ glass fabric used
- QuakeWrap™ resulted in significant time saving
- Project was featured in the show *"Back to the Blueprint"* on the History Channel



Credits

Consultant: Grenier Structural Engineering, Tucson, AZ
General Contractor: Concord General Contracting, Tucson, AZ

This project received the **2006 Award for Excellence in Structural Engineering (Retrofit)** by the Structural Engineers Association of Arizona



"The FRP Retrofit Experts"