



Project Overview

FRP RETROFIT OF CONCRETE FLOOR SYSTEM

Name: Plaza Diego
Type: Office Building
Location: San Juan, Puerto Rico
Completed: March 2005

PROBLEM

Formally the “Professional Building”, the Plaza de Diego received a makeover thanks to a \$24.5 million construction budget. As part of this revitalization project, a new penthouse floor was added to the 12th floor.

The addition of a new floor on top of the 12th floor required strengthening of the current roof structure. Access to the top floors was limited so the use of steel beam was not an economical option.



SOLUTION

QuakeWrap® FRP Retrofit System was selected since it provided the required strength increase to the penthouse concrete floor system without the need of additional beams. The existing concrete beams and slabs were retrofitted with QuakeWrap® composite carbon fabric and carbon plates. The materials were easily transported to the 12th floor where the installation took place.



Technical Highlights

- Addition of Penthouse floor required strengthening of roof on this 12 story building
- Access to the top floor was limited, making it difficult to use structural steel shapes
 - QuakeWrap® carbon fabric and plates were used
 - Strengthening was completed in 3 weeks
 - Allowed addition of 13th floor to high-rise

Credits

Consultant: Omega Engineering, San Juan, Puerto Rico
General Contractor: Omega Engineering, San Juan, Puerto Rico



“The FRP Retrofit Experts”