

## Wall Street Inn Watsonville, California

## Structural Engineering





## **Client Reference:**

Abe Novin, Owner Novin Investment Properties 825 Walker Steet Watsonville, CA 95076 (831) 768-8373

Budget: \$5.6 million

Mesiti-Miller Engineering was responsible for the structural repair and seismic strengthening of the historic Wall Street Inn, a handsome four-story mixed-use building designed by the prominent California architect William Weeks and constructed in 1911. With concrete walls, a concrete 2nd floor, timber 3<sup>rd</sup> and 4th floors and roof; the building is rectangular in plan at the first floor and U-shaped above.

In January of 2005, a five-alarm fire severely damaged the building, destroying the timber roof and most of the upper floors. Our challenge was to design a roof repair maintaining the roof's original profile for historical integrity while complying with current standards for seismic safety. Our design solution consisted of a low profile wood truss system with modern connections to ensure seismic safety.

Triggered by the fire-damage repair, the local building department required a "whole building" seismic analysis and upgrade. Using sophisticated three-dimensional analysis and working closely with the building department MME's design was able to provide an efficient yet effective strengthening plan that minimized impact on the historic architecture.

The building plan utilized state-of-the-art technologies including fiber-wrapping existing concrete columns and thickening existing shear walls with spray-applied concrete (shotcrete).