# WJE

# Fillmore Center

Seismic Assessment | San Francisco, CA



## CLIENT

The Fillmore Center

### BACKGROUND

The subject buildings are six- to nineteen-story structures with reinforced concrete bearing walls that were built using tunnel-form technology. The client needed to quickly establish probable maximum loss (PML), scenario expected loss (SEL), and scenario upper loss (SUL) estimates for five multistory buildings for a design level earthquake. Prior reports by three other firms had significantly different estimates of damage. WJE was retained to reevaluate the structures and provide rational estimates for each.



### SOLUTION

WJE engineers performed a seismic analysis of each structure to predict the extent of damage that might occur during a postulated earthquake. To make this effort as productive as possible, the engineers took advantage of some existing damage to the structures that had been sustained during a prior earthquake. Ground motion and damage data from the previous event were used to refine the computer models. WJE worked with a construction cost estimator to provide damage repair and replacement cost estimates for the predicted extent of damage. The engineers also developed retrofit concepts for improving the earthquake resistance of the facility.





ENGINEERS Architects Materials Scientists