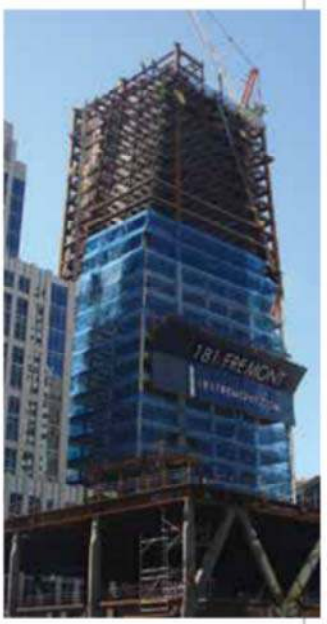
PROFILE

TAYLOR DEVICES

Across the globe, current building codes only require that new buildings be designed for collapse prevention. They do not require "performance-based designs" that greatly improve performance during an earthquake. It is assumed that a new building will perform well during earthquakes and allow residents to inhabit them immediately following a major seismic event. However, a brand-new building built to code could be seriously damaged, or collapse, making the structure useless after an earthquake. If more people knew this, lives could be saved, and replacement of damaged property could be minimized.



Taylor Devices' technology can limit or prevent such damage and make buildings perform to their full potential. This technology takes advantage of the same concept used on every car suspension in operation today to smooth out the bumps and make our rides safe. Other technology, such as yielding members, cannot provide equivalent performance. These devices are meant to yield in a major earthquake, so the building will have permanent damage and the devices would need to be replaced at an enormous cost. Imagine the backlash from residents, lawyers and insurance companies upon discovering that this was preventable.

Taylor dampers are designed to be maintenance-free and to last the life of the building, without requiring replacement after an earthquake. If more structural engineers knew how to model dampers, and were willing to analyze them in new structures, this could lead to saving lives and reducing rebuilding costs after an earthquake.

An exceptional example of Taylor's seismic dampers is the impressive San Francisco high-rise, 181 Fremont. Billed as one of the "world's most innovative and durable structures," Taylor Devices was tasked with working with the structural engineers to solve the challenges posed by the 802-foot building. In total, seismic and wind protection is provided by 32 Taylor dampers, each rated at 225 tons of force.

The dampers are nine feet long, 15 inches in diameter, and weigh as much as a compact automobile. Occupant comfort requirements dictated that the dampers continuously stroke, under even small wind motions, with almost zero seal friction. This required use of the company's patented metal bellows seals, initially developed by Taylor Devices for NASA. Scaling the small spacecraft parts up to sizes required for 181 Fremont was a challenge, but the results proved excellent. The metal bellows seal design provides a maintenance-free product designed for decades of service, while continuously stroking under minor winds or a major earthquake.

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