

noiseletter

Published by Kinetics Noise Control, Inc.
Problem-solvers in vibration isolation,
noise and shock control.

Kinetics® Spring Lift Slab Used To Reduce Subway Noise

Kinetics was handed a difficult challenge when the acoustical consulting firm of Shen, Milsom, Wilke & Associates specified a 5" (127 mm) thick floating concrete floor with a 6" (152 mm) air space, supported on 2" (51 mm) deflection spring isolators.

The project, an executive space for the accounting firm of Price Waterhouse was located over a New York City subway line that required a considerable reduction of low frequency noise and vibration.

Kinetics' Ron Skaggs developed the special spring isolators, which were used to raise the isolated floor slab 6" (152 mm) while compressing the spring element 2" (51 mm).

The isolators allowed for most of the spring compression and slab lift by using two pull down bolts. A center leveling bolt was then adjusted to attain precise floor leveling.

After adjustment is complete, a flush cover plate concealed the isolator and its bolts from view.

The installation and spring adjustment was performed by R.C.C. Concrete Corporation and supervised by Kinetics' New York representative, Vibration Products, Inc.

The accompanying photographs were taken during installation and show the relative ease with which the project proceeded.

Did the floating floor achieve the desired results? "Absolutely - subway vibration is virtually inaudible".

Kinetics manufactures isolators for floating floors, which use air, neoprene, fiberglass, and steel springs with natural frequencies of 1.25 to 30 Hz.

Kinetics lift slab isolators can incorporate overload protection, seismic restraint, isolator access for replacement, and can be fabricated for installation in concrete floating slabs from 3" (76 mm) to 16" (406 mm) thick.

