Laboratory test reports are an important source of information regarding anticipated performance of a sound barrier construction. However, differences in construction conditions between the laboratory and a real building can greatly affect, usually negatively, the performance of a sound barrier assembly in the field. This reality, combined with the typical client’s focus on reducing construction costs, requires that for a sound barrier construction to be successful, the effect of abutting constructions must be well understood. This paper reports on our firm’s experience in translating lab-tested light-weight sound barrier assemblies to the field, relating design conditions to field results in terms of physical construction and noise reduction results.