



## Project Scope

London-based Graff Diamonds consistently ranks as one of the best high-end jewelers in the world in terms of quality, service and even working conditions. Their New York presence at 710 Madison was a normal mixed retail and residential building, but normal won't do. Graff required a renovation of the retail space and converting the residential into further mercantile space.

The project was an extensive reconfiguration of the floors and two facades, turning a two-story retail space into a single full-height system with a cohesive façade that looks grander than its size. Plan B Engineering designed a system of shoring that provided vertical and lateral stability during the process. The façade on the 63rd Street and Madison Ave sides was completely removed, including most of the structure after being resupported on shoring. Since the façade also functioned as a shear wall, the shoring included vertical bracing. In order to make the space taller, the existing second floor was removed and a new lateral system was installed, so temporary diaphragm system placed just above the existing floor. After the lower floors had their structure replaced, the upper floors were removed and replaced in sequence with temporary diaphragms carrying lateral forces. As an older structure, each step of the process uncovered evidence of previous renovations and strange existing conditions within the walls. The procedure and details required constant adjustment to accommodate the newly-discovered conditions.

Of particular difficulty was the corner column at 63rd and Madison. Its load had to be supported from a distance to allow the column to be removed and new framing installed without excessive deflection and cracking in the masonry above.

## Project Expertise

- Scaffolding
- Demolition
- Historic Stabilization
- Overhead Protection
- Shoring and Bracing
- Pedestrian Protection
- Rigging
- Safety and Access
- Hoisting and Runback Platforms
- Temporary Enclosures
- Netting
- Jacking

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