

World Trade Center Disaster Response

New York, New York

Client

The New York City Department of Design and Construction

Completion Date

2002



On the afternoon of September 11, senior representatives from Thornton Tomasetti conducted an initial walk-through of the World Trade Center site with city officials to survey the situation and begin planning for widespread building inspections and on-site engineering operations.

By the morning of September 12, more than 30 of the firm's structural engineers were mobilized. Working with the New York City Department of Buildings, Thornton Tomasetti conducted inspections of more than 400 buildings in Lower Manhattan. Among the most challenging tasks were the design of grillages and the reinforcement of existing support members to allow placement of cranes, grapplers and other heavy equipment. Large cranes with long reaches and capacities of up to 1,000 tons were needed to provide access to the search and rescue areas, which were designated by the New York City Fire Department. Though at one point more than 30 cranes were on the site, there was not a single case of a crane support problem during the entire rescue and recovery efforts.

Services we provided included immediate damage assessment of buildings in the collapse area, assistance with demolition and temporary stabilization procedures, design of grillages and analysis of existing structures to support construction equipment, coordination of the survey monitoring of existing damaged structures, and inspection of hundreds of buildings in the area surrounding the collapse site.

Over the next 10 months, more than 1.6 million tons of debris were removed from the site. The recovery program was completed in \$1 billion under its original cost estimate and four months ahead of schedule. Most importantly, it was carried out safely, without a single major injury among the thousands of recovery workers, a reflection of the hard work and dedication of everyone involved.