



# STRUCTURAL ENGINEERS

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**ASSIST IN THE AFTERMATH**



*Building 7, collapsed.*



*A bent W27 steel beam in the wreckage.*



*Left: Building 4, damaged, looking south.  
Top: Building 5, with tower debris hanging from its façade.*



*Top: Towers 1 and 2, looking south.  
Bottom: The World Financial Center's Winter Garden, collapsed at center.*

Photos courtesy of the DiSalvo Ericson Group, Ridgefield, CT, taken by engineers Val Ericson, Ken Jones, and Evans Mountzouris.

In the days and weeks following the tragic collapse of the World Trade Center, hundreds of structural engineers from the New York metropolitan area pitched in to help with the rescue and recovery operations as well as evaluating the stability of damaged buildings nearby. Rotating teams of engineers worked around the clock, first in 8 hour shifts, and later in 12 hour shifts to assist rescue workers in the removal of debris and the search for survivors.

The volunteer efforts were directed by the Structural Engineers Association of New York (SEAoNY), operating out of the offices of the nearby structural engineering firm of Gilsanz Murray Steficek. SEAoNY worked with the NYC Office of Emergency Management, the NYC Department of Design and Construction, and the NYC Building Department to deploy teams of engineers to critical areas of the World Trade Center site.

Structural engineers from across the country offered their assistance. The vast majority of volunteers were from New York City based firms. A few days after the collapse, a few teams from Connecticut and New Jersey were called in to help out along with a team

of engineers that drove from Chicago. Hundreds of engineers throughout New England, upstate New York, and New Jersey remained on standby in case additional help was needed.

Engineers returning from the World Trade Center site described a scene that they would never forget. The TV news footage was little preparation for the monumental nature of the devastation that they observed. Surrounding buildings had been badly damaged by falling debris. Large sections of structural steel columns and girders from the collapsing towers had speared into the facades of nearby buildings and were dangling hundreds of feet above the street. Fires continued to burn for days below the surface of the rubble and some of the structural steel sections being removed were still red-hot.

As heavy equipment was brought in to remove debris, structural engineers worked with the Contractors in determining where the equipment could be safely positioned to avoid falling through the plaza structure at street level. Engineers also directed the Contractors in the removal of unstable piles of debris.

Other teams of structural engineers inspected the damaged buildings in the blocks surrounding the World Trade Center site. The impact of the collapsing towers had created a seismic shock wave that shook buildings throughout lower Manhattan. Falling debris from the towers battered surrounding buildings.

A map and list of damaged buildings is available at [www.seaony.org](http://www.seaony.org).

The engineers worked without compensation or indemnification from liability.