

Development of an Environmentally Sound Demolition Method for high-rise building Deconstruction by the “jack-down” Method

In April 2007, we started development of a pioneering demolition method when we decided to dismantle our former head office buildings (75-meter tall / 20 stories, and 65-meter tall / 17 stories).

Buildings are usually demolished by placing heavy equipment and workers on the top floor of a building and then lowering dismantled material down to ground level.

We, however, demolished its former head office buildings using a world-first technique called the Kajima Cut and Take-Down Method, which enables demolition work to be carried out on the ground floor. By starting at the bottom, gutting one floor, and then lowering the entire building down on jacks one floor at a time, all the work can be performed safely at ground level.

Kajima Cut and Take-Down Method affords a dismantled building being dismantled the same level of seismic and the wind resistance throughout.

We installed the "Core Wall System" and "Load Transferring Frame" into the building structure to keep the same level of seismic resistance capability during the demolition work.

Although our method could be applied to almost any types of building, there are some conditions that may limit the use of this method.