

# The FIRST Tower Renovation Project

## Paris La Défense – FRANCE



Located in La Défense, Europe's largest business district on the western edge of Paris, the FIRST Tower occupies a prominent position along the historical Louvre – Champs-Élysées axis.

The FIRST Tower (previously known as the “AXA Tower”) was built in 1974 by the UAP insurance company. The tower is 159 m tall (46 floors) with a total floor area of 79 400 m<sup>2</sup>.

In December 2005, the EPAD (La Défense Development Authority) announced a 9-year development plan called “La Défense 2006-2015”. One of the aims of this plan is to upgrade outdated high-rise buildings to current international standards.

In 2003, AXA launched an international design competition for the global renovation of the tower with the following key objectives:

- Ⓢ Renew the tower’s visual identity,
- Ⓢ Achieve compliance with current building codes,
- Ⓢ Eliminate asbestos contamination
- Ⓢ Integrate Sustainable Development features
- Ⓢ Develop efficient pedestrian connections with La Défense and the Metro station.



The design proposed by the American architects Kohn Peterson Fox was selected by AXA in 2004 from a short-list which included Skidmore Owings & Merrill, Jean Paul Viguier, Valode & Pistre and Pei Cobb Freed & Partners.

View of the new design with additional 10 floors in the form of a spire

The FIRST Tower viewed from the "Arc de la Triomphe" and the "Champs Elysées"



## PROJECT FEATURES

The renovation of the tower began in 2007. In addition to complete replacement of the façade, ten additional levels were added. The tower now measures 240 m tall including its spire. It is now the tallest high-rise building in France, with a total floor area of 86,700 m<sup>2</sup> accommodating 5600 persons.

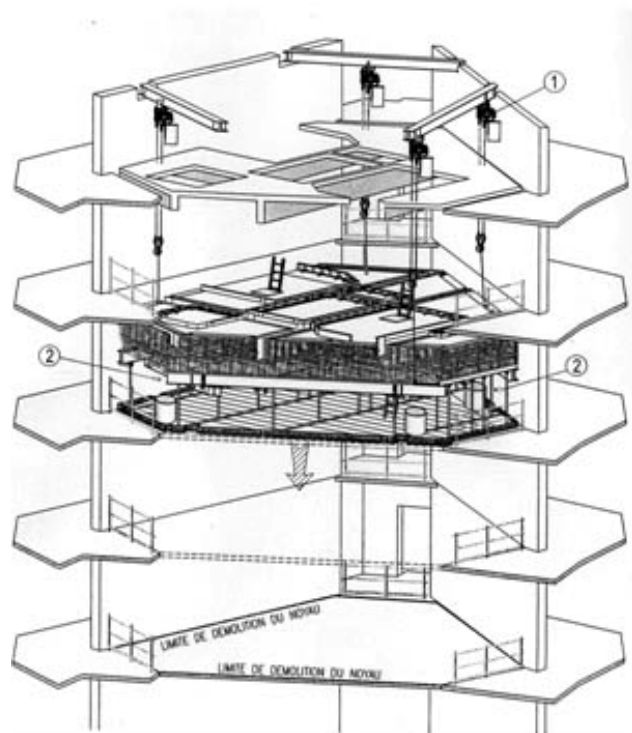
## DEMOLITION



Demolition works commenced in February 2008. Only the primary building structure was maintained.

## STRUCTURAL MODIFICATIONS

- ❖ Reinforcement of foundations and core due to modification of the center of gravity of the structure
- ❖ Complete modification of the core, conserving only the load-bearing elements
- ❖ Extension of the floor slabs from 15m to 18 m width
- ❖ Replacement of structural end walls by columns and beams in order to increase the window area
- ❖ Creation of 6 atriums at various levels of the tower



Floor slabs in the core area were demolished and reconstructed using an innovative system of formwork suspended from the 39th floor

## SUSTAINABLE DEVELOPMENT

Half of the 38.000 m<sup>2</sup> façade employs double-skin technology allowing solar energy to produce natural air circulation, thereby reducing energy consumption.

In order to further reduce energy consumption and achieve the sustainable development objectives defined with the owner, the building is designed to take advantage of efficient municipal heating and cooling networks as well as energy-saving systems such as heat pumps. Based on this design, the project has been granted CERTIVEA sustainable development certification.

Utilities / energy production:

- Ⓢ Electricity – 10MW
- Ⓢ Heating production – 4.5 MW
- Ⓢ Chilled water production – 7.5 MW

## PROJECT VALUE

Estimated total construction value: 321 M€  
(including asbestos removal)

## SCHEDULE

Building permit obtained: December 2006

- Ⓢ Reconstruction Phase started: February 2008
- Ⓢ Asbestos removal completed: February 2009
- Ⓢ Completion: January 2012 (36 months)

## OWNER

SCI Vendôme Assur in association with AXA and  
Beacon Capital Partners

## COTEBA SCOPE OF SERVICES

Project Management

