

W O R L D T R A D E C E N T E R

Building Enhancements: Life Safety Features

2 WTC, 3 WTC, 4 WTC

STRUCTURE

- The building structures are designed with increased robustness and **redundancy of steel**.
- **Reinforced concrete walls** protect the towers' core for the full height of the towers, including the lobby, exit stairways and elevators.

EVACUATION

- **Exit stairs are 20 percent wider** than required by NYC Building Codes. Located within the reinforced concrete core, the stairs permit a more rapid evacuation and allow for easier access by emergency responders.
- **Four fire stairways exit directly to the outside**, avoiding possible confusion associated with exiting through the building lobby. Transfer is possible between stairways.
- Widely-separated stairs are equipped with **emergency lighting** and glow-in-the-dark paint and are pressurized to resist the intrusion of smoke.
- Areas of refuge located within stair enclosures are provided for people with disabilities.

ABOVE-CODE DESIGN

- **Fireproofing** material used to protect the steel structure is 10 times as adhesive and 50% more fire resistant than required by building codes.
- Service elevators protected by impact resistant shaft construction, pressurized elevator vestibules, and water-resistant construction, designed to increase elevator reliability in an emergency.
- **Dual standpipes and water storage capacity** for the buildings' sprinkler system exceed code requirements.
- **Fresh air intake system** is located at the top of the towers include multiple levels of high performance filters.