

Sphere City Center

Monterrey, Mexico / 2014

Structural type
Owner
Client
Scope
Architect

reinforced solid slab
Citelis
Zaha Hadid Architects
detailed design
Zaha Hadid Architects



Esfera Monterrey is a 981-unit residential complex designed by Zaha Hadid Architects and that is formed by several buildings of moderate height interconnected through walkways and internal courtyards. This configuration allows an adequate transition between public and private space, isolating the residential space from the commercial environment. The orientation of the facades, the control of natural light and the optimization of natural ventilation, ensure climate comfort with low energy consumption.

Reinforced concrete slabs are used to follow the variable geometry and are designed without permanent joints despite the significant dimensions of the buildings (up to 300 m between joints). This typology is appropriate for the moderate seismic forces that must be considered in this area, transferring as well the deviation forces originated by the inclined supports to the concrete cores. The bridges connecting the buildings are designed as vierendeel steel beams that support conventional composite slabs.

The low carrying capacity of the supporting ground requires an in situ pile foundation up to 20 m deep.



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