AÃ‰ROPOLIS II 2005 - 2010

Construction of an office building and plaza avenue Britsiers in Schaerbeek.



Site
Avenue Urbain Britsiers, 5 1030 Brussels

Client
Groep Arco - KWB - KAV - KAJ

Structural engineer
Setesco

Services engineer
Cenergie - ingenieursbureau Stockman

Contractor
Jacques Delens - Vanderstraeten

Budget
13 500 000 EUR htva

Project Manager
Dexia

Movie
http://www.labproject.be/1030/13.html
http://www.archiurbain.be/?p=3765

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Aeropolis is an urban UFO. Its compact form sits square on street alignment south just to show it does belong there, discretely steps back west liberating a sunny plaza like a breather off the busy boulevard, and humbly aligns its cornice levels with the massive KINETIX next door. The resulting built form wraps itself around a federating patio ensuring optimal daylight entry for all occupants. So it is a respectful UFO.

Aeropolis is also an eco-ovni, being at design stage Europe's largest passive office building, Belgium's largest when finished. Environmental concerns were an integral part of the client brief at competition stage already, so from the onset priority was given to investments and construction principles reducing energy consumption and the use of non-renewable resources. Highly-effective thermal insulation and efficient natural (daytime) and forced (night) ventilations (without resorting to the use of Â« energy-squandering Â» cooling systems) help reach these goals.

The compactness achieved limits faÃ§ade surfaces, thus lowering thermal loss. The main load-bearing structure is bare pre-fabricated concrete, for its thermal inertia. FaÃ§ade walls are composed of one-story high pre-fabricated timber frames of two types : opaque or glazed, of variable widths allowing them to be placed according to the varying organization of office spaces on each level ... the resulting hopscotch of solids and gaps amplified by projecting volumes incorporating the automatically-opening ventilation frames.

The reduction of window surfaces down to 42.5% for each standard office and down to 29% for total window surfaces adds to the significant reduction of heat loss in winter, and reduces heating during cold spells. Along with the exterior solar protection, it is critical in limiting cooling during warmer periods. These reductions in no way hinder the generous flow of natural light (22%), reducing even more drastically total energy consumption.