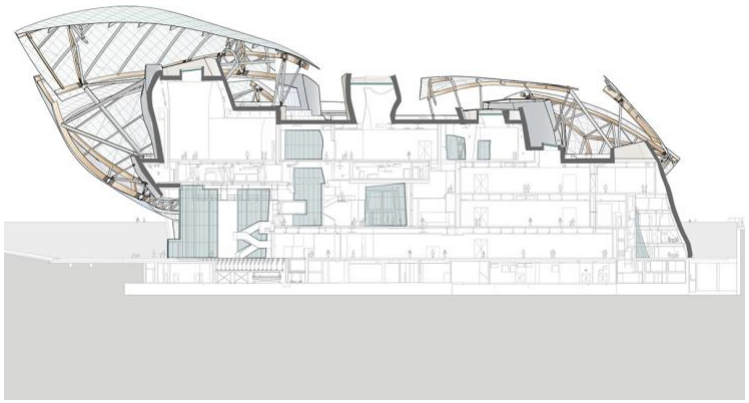






Fondation Louis Vuitton

Location : 8 avenue du Mahatma Gandhi, Bois de Boulogne, Paris XVI

Architect : Gehry Partners LPP (architecte de conception), Studios Architecture (architecte local)

Client : Fondation Louis Vuitton

Package : Glass sails, Opaque envelopes ("Iceberg"), Glass envelopes

Scope : T/E/S/S (in a temporary partnership with RFR) led the technical design and execution monitoring of three main structures: the glass sails, the opaque envelope named “Iceberg” and the glass envelopes.

Date : 2007–2014

Since its inauguration, the Fondation Louis Vuitton, designed by architect Frank Gehry, has become one of the most striking edifices in Paris. Located on the edge of the Jardin d’Acclimatation, in the Bois de Boulogne, it contains 11 contemporary art exhibition galleries, as well as a 350-seat auditorium.

The internal spaces are enveloped by a white skin, chiselled and irregular, known as the Iceberg. This facade is made up of 19,072 curved panels, nearly all different, obtained by moulding white ultra-high-performance concrete (UHPC).

The openings and apertures that separate the solid volumes of the Iceberg are glazed, comprising 46 different elements of greatly varied configuration, scattered around the building. The challenge was to combine their unusual and complex geometry with the very high performances required for the facades in terms of waterproofing, thermal insulation and fire-resistance.

Over the Iceberg, 12 glass sails float around the building, with a cumulative surface area of 13,400m². Overlapping one another, their relationship with the body of the building creates a series of complex, porous, changing spaces. These sails do not have any function in terms of enclosing the building, but protect the terraces in bad weather and reduce solar gain. Their structure is comprised of a Duplex stainless steel mesh supported by steel and glulam beams. These beams are curved and sometimes twisted and are in turn held by 179 posts. Despite the apparent complexity of the structural intertwining, there is not one piece too many, and each is perfectly dimensioned. The 3,600 curved panes of glass that cover these sails are equally non-repetitive. They are the result of a new industrial process that enables infinite variation in hot bending.

For this project, T/E/S/S teamed up with RFR in a temporary partnership. The resulting team led the technical design of the glass sails, their timber and steel structure, the Iceberg and the glazed facades, from the earliest stages of the project through to its completion, in close collaboration with the architects, contractors and client.