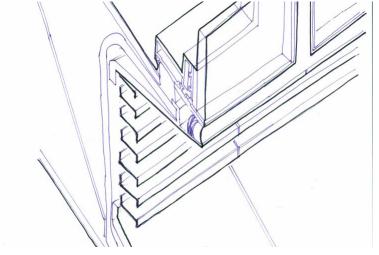
T/E/S/S ATELIER D'INGÉNIERIE







122 avenue Leclerc

Location: 122 avenue du Général-Leclerc, Boulogne-Billancourt

Architect: AZC - Atelier Zündel Cristea Client: GECINA, in association with HINES

Package: Glass facades

Scope: Technical design and implementation monitoring of the glass

façades

Date: 2012-2015

This project is the complete redevelopment of a 1970s office building in Boulogne-Billancourt, near the Pont de Sèvres. Characteristic of the period, the building's original facades featured very closely spaced architectural grade concrete fins and load-bearing columns. The project aims to open up the facades by removing five out of every six columns.

The new facade, largely glazed, is a slim double-skin, externally ventilated and incorporating solar protection. The new facade gives the building an entirely new image, while also meeting stringent thermal and acoustic requirements. Studies lead to a facade design that is visually very simple, with a uniform glazing to the exterior. Inside, the new facades give open views towards the exterior. Access for firemen and smoke extraction vents are discreetly integrated so that they do not break the continuity of the glazed facade.

The exterior glazing has a high-performance solar-coating that helps to reduce solar heat gain. The glazing is held in place by SSG (structural silicone glazing) on a minimal aluminum frame, supplemented by slim rods that structurally connect the two facades. The interior facade comprises full-height glazed panels (2.6 m) of low-emissivity glass, further improving thermal performance. The ventilated cavity between the two layers of glass also houses, and shelters, a motorized sunscreen.

The aim here is to reconcile apparent simplicity with a very high level of performance. The facade is very simply detailed. The building's corners, for example, are fully glazed, with very slim glazing profiles. Only the play of reflections and transparency between the two layers of glass gives any indication of the thickness of the facade.

The facade's thermal performance meets the following environmental standards: BBC Effinergie Rénovation, HQE Rénovation, LEED Gold, and Objectif Facteur 4 (75% reduction in CO² emissions).