



## Central Plaza

Location : Dublin, Irlande

Architect : Henry J Lyons Architects

Client : Hines / Peterson Group

Package : Structure et verrière

Scope : Conception de la charpente et de la verrière, suivi de réalisation de la charpente

Date : 2017-2019

The Central Plaza building is one of the tallest in Central Dublin. As part of the renovation of the former headquarters of the Central Bank, a new public space is created on the roof. The new rooftop benefits from a panoramic view on the city, and becomes a beacon that symbolises the renewal of the city of Dublin.

The new roof takes its shape from the existing mansard roof structure, which supports the building floors through suspension ties on the perimeter of the building. The project transforms the existing opaque technical roof into an airy restaurant space, shielded from the environment by a semi-transparent envelope.

T/E/S/S was involved from the early concept designs for the rooftop structure and envelope, first as technical consultants to the architects, and later on as structural designers for the new roof structure, with site supervision duties until completion.

The structural diagrid follows the geometry of the roof. The steelwork and glazing layout work together with the iconic vertical ties of the existing building. The structural grid naturally forms a stiff truss in the plane of the roof panes, providing stability under horizontal loads.

To control the solar gains from the glazed roof, patterns are printed on the glass, varying gradually from a lighter pattern on the perimeter to a denser pattern close to the cores. Thus, no additional solar protection is required.

Central Plaza is a major component of Dublin's skyline, and has a strong architectural and technical significance through its atypical structural system. The design was carried out in light of this important urban context, with the aim to provide a positive experience to the visitors of this new space.

