Jubilee Line Extension - Canary Wharf Station

Canary Wharf Station has the largest passenger capacity on the new Jubilee Line extension. At 35 metres wide, 27 metres deep and 313 metres long, the station is as long as Canary Wharf Tower - Britain’s tallest building - is tall.

The station is entirely underground, built within the drained West India Dock, using cut and cover construction. A new park covers the station at ground level, where the only visible elements to announce the station are the three dramatic curved steel and glass entrance canopies. These structures prevent rain and wind entering the station, while admitting generous amounts of daylight deep into the station cavity.

The station’s vast scale is designed to accommodate the substantial increase in passenger numbers expected when the planned developments at Canary Wharf are complete. The sheer volume of anticipated traffic defined the guiding principles in the design of the station: clarity of circulation, durability of materials and ease of maintenance. London Underground Ltd required a structure with a life span of 200 years. To ensure passenger safety and comply with the stringent fire regulations demanded in underground stations, no combustible materials could be used. These demands have resulted in a building with a simple diagram and with materials and finishes that are functional, resilient and elegant.

Twenty banks of escalators carry passengers to the ticket hall and then down to platform
level. Whether alighting at platform level or entering the station at ground level, there is a single, clearly defined route for passengers, which minimises the need for directional signage. Ticket machines, administrative offices and shops are housed along the sides of the ticket hall, leaving the central space clear for passenger movement.

Reinforced-concrete columns, elliptical in plan, stretch from platform level to the roof where elliptical bearings allow the station to move in response to geological pressures. The concrete columns and roof structure were cast on site and have a natural finish. At their bases, where they can be touched, the columns are clad in stainless steel to prevent vandalism and damage.

The floor is covered in pre-cast concrete pavours. All other surfaces are stainless steel, aluminium or glass. This robust, engineering aesthetic is at its most pronounced at platform level where the concrete diaphragm walls that were cast into the ground been left exposed.

The Jubilee Line extension introduces security and safety innovations such as the platform-edge door-screens, which protect passengers from incoming and departing trains. Transparent glass lifts enhance passenger security and deter vandalism. All cabling is housed under the platforms or behind the walls, accessible via maintenance gangways, allowing the entire station to be serviced from behind the scenes.