

Heathrow Terminal 5



The project celebrates the magic of travel, creating a memorable place with a rich and varied public realm for travellers and those who serve them.

Place/Date
Heathrow Airport, London 1989 - 2008

Client
BAA plc

Total Project Cost
£4.3 billion

Total Area
**300,000 m² Terminal, 60,000 m² Satellite 1
55,000 m² Satellite 2**

Architect
Rogers Stirk Harbour + Partners

Structural Engineer
Arup

Services Engineer
DSSR/Arup

Quantity Surveyor
Turner & Townsend/E.C. Harris

Retail Consultant
Chapman Taylor

Civil Engineer
Mott McDonald

Principal Contractors
Laing O'Rourke/Mace/Balfour Beatty/AMEC

Construction Management
BAA plc



The construction of a fifth terminal at London Heathrow, seen as critical to the airport's continuing position as the busiest in Europe, was the subject of a limited competition in 1989. The winning scheme is based on a projected capacity of 30 million passengers annually and reflects the success of 'single-level' airport terminals such as London Stansted, designed by Norman Foster for the British Airports Authority, also the client at Heathrow.

The passenger areas at Terminal 5 are on one level, with plant rooms, baggage handling and other ancillary functions below, though passenger areas extend over two levels at both edges of the building. The immense roof is dynamically curved, with great bands of glazing flooding the interior with daylight and leading passengers through the building in a logical progression from arrival point to embarkation.

The building is effectively a dramatic progression of spaces, which vary in height according to their function. The structure is strongly expressed, with great structural 'trees' supporting the roof. Aircraft load and unload at stands on the core building, as well as at two satellites served by a rapid-transit system. Provision is made for an underground and mainline rail link from central London, contained in deep tunnels. Natural ventilation is impractical in view of noise and air pollution from aircraft but the design adopts an energy-efficient strategy using a displacement air-conditioning system developed by Arup and shading by means of canopies and low eaves to reduce solar gain on the long east and west elevations.

Heathrow Terminal 5 is likely to be one of the most striking examples of airport architecture at the beginning of the 21st century and as significant a work in the RSHP oeuvre as the Centre Pompidou in the 1970s and Lloyd's of London in the 1980s.

Awards

Supreme Award for Structural Engineering Excellence, Institution of Structural Engineers (IStructE)
2008

Structural Award for Commercial Structures, Institution of Structural Engineers (IStructE)
2008

Off Site Construction Award - Best Commercial Project, Off Site Construction (OSC), Sustain Magazine
2008

British Construction Industry Awards - Highly Commended
2008

Structural Steel Design Award
2008

RIBA National Award
2008

RIBA London Award
2008

