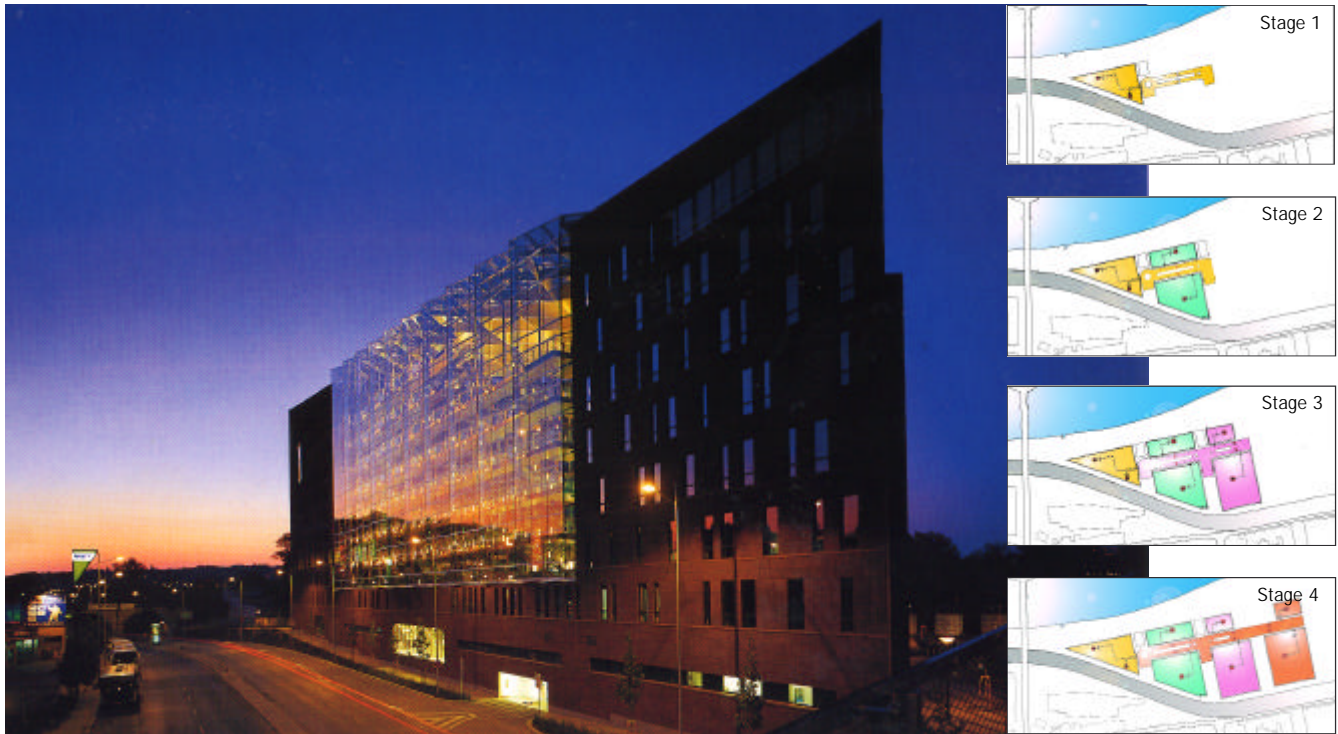


BATTLE McCARTHY®

Consulting Engineers & Landscape Architects



PROJECT:
River City Prague, Development

CLIENT:
Europolis Invest

ARCHITECTS:
Kohn Pedersen Fox Associates

BM SERVICES:
Building Services & Environmental Design

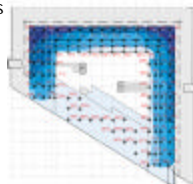
VALUE:
£95million (approx)

CONTRACT DATES:
1998 - 2003

DESIGN BRIEF

This office development is located on the site of a former railway siding. The building features a large, central south facing atrium, night time cooling and geothermal coupling. Battle McCarthy are providing the Building Services for a series of buildings that will constitute a major mixed-use development based close to central Prague on the bank of the river Vltava. The River City Prague buildings are intended to provide a high degree of occupant comfort whilst achieving optimal low energy targets to suit both European and potentially global tenants.

Detailed Daylight Analysis of Atrium Offices



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DESIGN INITIATIVES/ACTIONS UNDERTAKEN

Building 1 Danube House

A prime feature of this building is the use of natural ventilation and exposed mass. These features when combined with displacement ventilation and perimeter heating ensure that the building will meet the low energy targets set out from the start; at the same time achieving year round comfort in this variable climate. Provision has been made in the base design to integrate high level passive chilled beams within the service fingers should any tenants decide that this is a necessity for their operational casual gains.

The atrium has been conceived as a bio-climatic space, where internal environmental conditions are closely coupled to the outside climate. The atria form a very important part of each building as a whole, providing an environmental buffer to the office spaces and a semi-controlled environment for all primary circulation routes.

The key environmental features of the atria are:

- High levels of daylight penetration, natural light to the surrounding office spaces.
- Natural ventilation atrium & offices.
- Displacement supply air to offices and atrium.
- High performance solar control neutral low 'e' double glazing
- Parasitic heat capture from the adjacent office spaces
- Provision of fresh air from River Vltava
- Earth tubes for passive pre-conditioning of the fresh air
- Air-tight construction
- Ventilated walkways
- Passive solar heating

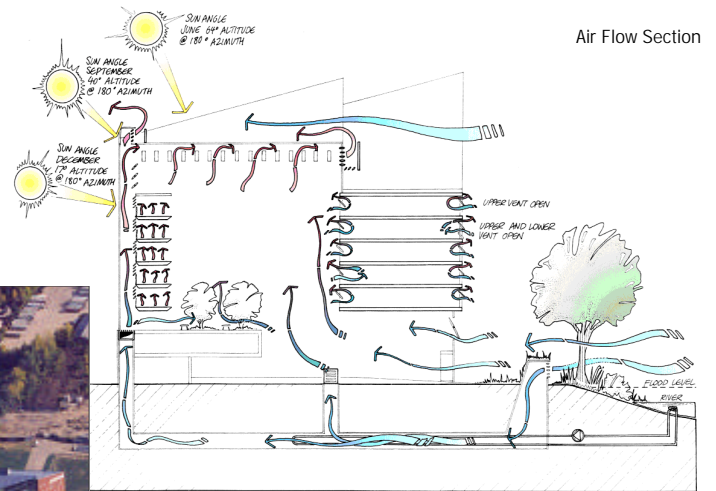
AWARDS

Building Services Journal International Achievement Award 2004
The Architectural Review Future Project Prize MIPIM 2003

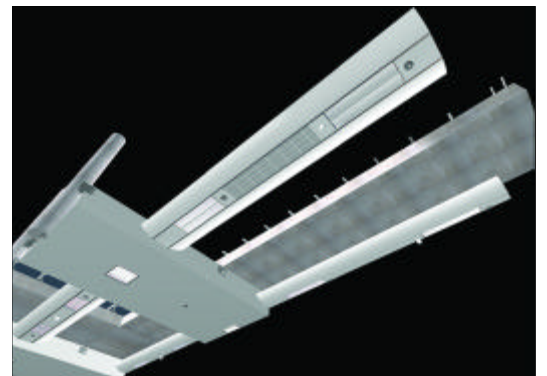


Main features are:

- Borehole/heat pump heating and cooling of fresh air
- High efficiency plant and systems
- Designed to meet both DIN and Czech standards
- Provision for future passive chilled beams
- Very high efficiency façades
- Displacement ventilation
- Exposed mass concrete soffit
- Night time cooling strategy



Aerial-Site Photo
Danube
& Nile House



Service Fingers

Service Point

