



## 3 GLASS WHARF BRISTOL

Featuring a highly decorative facade, incorporating a unique seven storey art installation, the design of 3 Glass Wharf was inspired by the site's previous life as a glass works. Its elegant floor-to-ceiling glazing frames views over the flourishing Temple Quarter of the city.

The environmentally-friendly space will soon be home to more than a thousand HMRC employees. The building's new occupants will benefit from sleek new amenities and enjoy a prime location next to Bristol Temple Meads train station.

The accommodation is required to provide BCO 2014 specification CAT A space. The new offices are also expected to achieve a BREEAM rating of 'Excellent'.

BuroHappold Engineering was appointed as the MEP consultant at the end of RIBA Stage 2. A review of the concept established that the design did not meet BCO requirements in relation to vertical transportation, and the concept had other shortcomings in respect of services distribution strategies and resilience. Our specialists also identified that due to the building's proximity to the railway, there was a significant risk of glare impacting on Network Rail.

Our engineers made certain that sustainable design principles were used

in all aspects of the building services solution, ensuring it will be highly efficient.

The structural solution for the eight storey building is post tensioned cast in-situ concrete, incorporating down stand beams. Our experts carefully coordinated the building services with these beams, which are necessary to support the structure's large spans and cantilevered balconies.

After undertaking the design review, we made significant changes to the Vertical Transportation (VT) strategy and primary distribution strategies to make the building more resilient. We then produced a set of detailed performance design documents for tender. We also re-assessed the heating strategy and created a more suitable design for the developer, which resulted in a significant cost saving. This required an amendment to planning regarding energy.

Having identified the glare risk associated with the extensive glass facade, BuroHappold Lighting prepared a glare assessment. This supported discussions with Network Rail when agreeing acceptable levels of reflectance from the glass, so as to minimise the impact of glare on train drivers on the adjacent railway.

BuroHappold is now acting on behalf of the client to review the contractor's developed design and liaise with HMRC Cat B designers to ensure that the Cat A design is capable of supporting the final requirements of HMRC.

With its striking facade and ideal location next to Bristol's main railway station, 3 Glass Wharf will complete development fronting the floating harbour and is sure to bring both opportunity and ambitious energy to the city's regenerated Temple Quarter.

### CLIENT

Salmon Harvester Properties Ltd

### ARCHITECT

Darling Architects

### PROJECT VALUE

Confidential

### DURATION

Ongoing - completion due 2018

### SERVICES PROVIDED BY BUROHAPPOLD

Building services engineering, sustainability consultancy, acoustics

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