

What is BREEAM?

BREEAM is the world's foremost environmental assessment method and rating system for buildings, with 250,000 buildings with certified BREEAM assessment ratings and over a million registered for assessment since it was first launched in 1990.

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BREEAM - Case Study - Hilton Hotel at the Ageas Bowl, Hedge End, Southampton (Updated March 2015)

As part of our ongoing commitment to meet BREEAM guidelines, we will be updating this online case study as the works continues, leading to project completion on 13th April 2015



Front Elevation – 21st March 2014



Pitch-side Elevation – 21st March 2014

ABOUT THE PROJECT

- Take occupation of a part-finished building shell and commence the works to the envelope of the building with a view to achieving a watertight condition at the earliest possible date. At the same time also completing the temporary fitting out of the media centre in a 16 week programme ready for the Sky Sports coverage of the India test match.
- Continue with the envelope works whilst rectifying numerous defects in the building caused by 6 months of dormancy during the winter months from October 13 to March 14 – one of the worst winters for a number of years, with snow, driving rain and gales.



Weather damaged sheet roofing



Collapsed Blockwork



Water damaged intumescent paint

- Commence with the main works, including the stripping out of all mechanical and electrical installations which were found to be non-compliant, enlarging plant areas, completing the building envelope and start internal partitioning.
- Develop the new M&E design, along with fire safety systems, IT, A&V and Data and carrying out the necessary alterations to the fabric of the building to accommodate the systems. Commence the external works, including drainage, gabion walls, brise soleil, car parks, outside broadcasting area, 'green' roof and pitch-side brick paving.
- Continue with the fit out of the building to achieve a phased handover, whilst also starting the commissioning process for the fire systems, A/C and electrical, all essential to achieving Practical Completion.

KEY BREAAAM FACTS

- **Target rating** : 'Very Good'
- **Actual Rating** : Currently at 'Good' – 53.49%
- **Size** Footprint of Building - 2,900m² Footprint of Site - 1.25 Hectares
- **Stage** 5 weeks remaining of a 56 week project
- **Key Innovative and Low Impact Design Features** :
 - i) Heat recovery facility for Mechanical Systems
 - ii) Brise Soleil external feature for reduction of sunlight glare
 - iii) Semi-recessed into berm (two floors) reducing visual impact and improving thermal performance
 - iv) Rainwater discharged to local pond reservoir
 - v) Spoil from reduced level dig recycled 100% into new golf course landscaping
 - vi) Protective measures, including root protection, taken to maintain Westwood Copse woodland
 - vii) Two large green roof areas with expansive grassed beds
 - viii) Full height glazing to pitch-side bedrooms, maximising natural light and full width glazing to front bedrooms
 - ix) Anticipated energy efficiency rating for the building currently at 'B'



Brise soleil panels

BUILDING SPECIFICATION

- Total Building Cost : £1,562/m² (£25m – 16,000m²)
- Services Costs : £450.75/m² (£7.10m – 16,000m²)
- External Works Costs : £105.55/m² (0.95m – 9,000m²)

Function Areas and their Sizes :

- Bedrooms : 4,956m²
- Reception : 291m²
- Main Restaurant : 400m²
- Conference Facilities : 975m²
- Meeting Rooms : 296m²
- Executive Lounge : 133m²
- Toilets : 184m²
- Media Centre : 298m²
- Cricket Concession : 770m² (Shell Only)
- Golf Facilities : 413m²
- Spa Facilities : 1,466m²
- Kitchens : 407m²
- Admin and Offices : 277m²

Circulation Areas and their Sizes :

- Bedroom Corridors : 895m²
- Front of House Areas : 299m²
- Back of House & Fire Escape Stairs : 236m²

Storage Areas :

- Linen & Pantry Areas : 210m²
- General Storage Back of House : 1,255m²



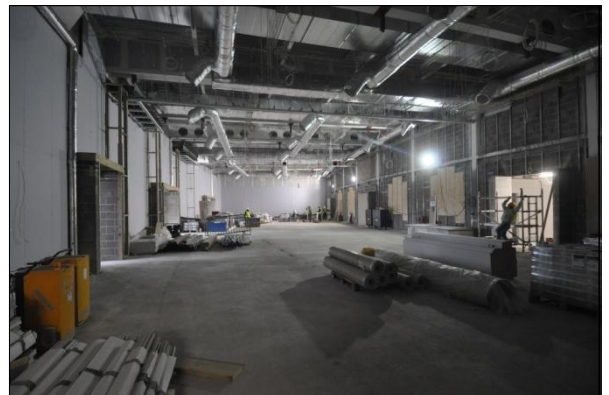
Bedroom during construction May 2014



Sample bedroom completed on site September 2014



Conference / Ballroom at commencement March 2014



Conference / Ballroom with walls lined and services complete ready for ceiling installation Feb 2015

ENVIRONMENTAL IMPACT

- Predicted Electricity Consumption : 94.75kWh/m²
- Predicted Fossil Fuel Consumption: 94.82kWh/m²
- Predicted Renewable Energy Consumption : 27.14kWh/m²
- Predicted Water Usage : 96.70m³/person/year

Steps Taken During the Construction Process to Reduce Environmental Impacts :

- Minimisation of noisy works on site and restricted working hours to reduce the impact on neighbours
- Monthly newsletters to inform neighbours of progress and advise of any works that may effect them
- Spoil from reduced level dig recycled 100% into new golf course landscaping
- Additional landscaping and planter beds to car park areas

Social or Economic Sustainable Measures Achieved/Piloted :

- Protective measures, including root protection, taken to maintain Westwood Copse woodland
- Rainwater discharged to local pond reservoir