

D4FC Factsheet 5:

Great Ormond Street Hospital Phase 2B

Contact details

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General project information

Name of project: Great Ormond Street Hospital Phase 2B
 Location of project: London
 Type of project: New build using part of the existing structure
 Cost of project: £45m

Project team

Client: Great Ormond Street Hospital
 Designer: Llewellyn Davies Yeang, WSP
 Contractor: Not yet tendered

Project description

The building project is for a new cardiac wing at Great Ormond Street Hospital for Children. Included in the development works are the demolition of Levels 4 and above of the existing building, a refurbishment of the remaining existing levels and the construction of new Levels 4 to 7. The existing 9000 m², narrow rectangular building is a concrete framed structure, whereas the new construction will be steel framed.

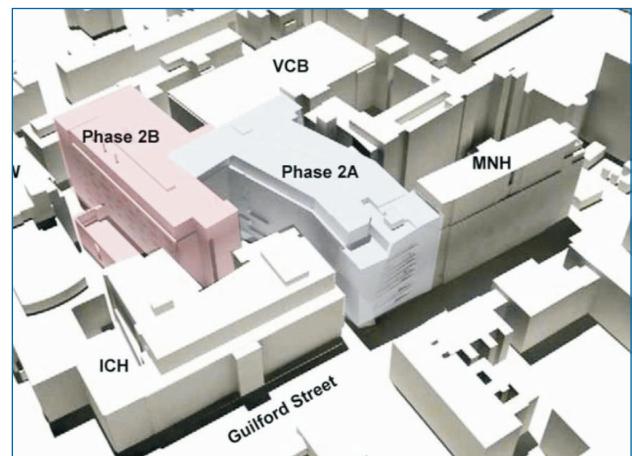
The building is located on Great Ormond Street Hospital site in the centre of London. The building is part of a four phase redevelopment of the entire site, of which the new cardiac wing is Phase 2B. The four phase redevelopment program intends to redevelop many of the site's old (circa 1930s) buildings to a modern standard and also upgrade the site's energy and servicing infrastructure, some of which is also included in Phase 2B.

Project timescales and dates

Design and assessment period (pre-planning): February 2011 to July 2011

Construction period (post-consent): 2012 to 2016

Operation and monitoring period: N/A



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Further project details

1 What approach did you take in assessing risks and identifying adaptation measures to mitigate the risks?

- risks were assessed using a rating of probability and impact resulting in a rating between low and extreme
- where possible risks were quantified in terms of their impact on the building under different climate scenarios
- some adaptation ideas were generated at the CCA focus session held with the client and design team early in the process. The CCA team generated more ideas as the project progressed.

2 How have you communicated the risks and recommendations with your client? What methods worked well?

- we have provided results both in report and presentation formats, both of which have contained sketches to communicate design concepts and graphs to communicate the outcomes of design modelling
- we have found with the bulk of material generated that the presentations have been more successful than the reports owing to the length and content of the reports.

3 What tools have you used to assess overheating and flood risks?

- we have used TAS modelling software with weather data generated by the Prometheus project at the University of Exeter to assess overheating.

4 What has the client agreed to implement as a result of your adaptation work?

- the project is not yet at a stage where recommendations and implementation has been agreed.

5 What were the major challenges so far in doing this adaptation work?

- we believe to realise value for the client there needs to be an emphasis on being able to quantify the effect of climate change scenarios to understand whether immediate or delayed investment is necessary. This can be done with some certainty for risks to thermal comfort, however construction and water risks require more support to enable quantification
- there is a wide range of potential climate change impacts. The challenge is to direct the funding to areas that will yield the most benefit for the client in terms of increasing asset resilience to the effects of climate change.

6 What advice would you give others undertaking adaptation strategies?

- involve the client early with a climate change adaptation focus workshop that aims to:
 - educate the client on the range of CCA issues
 - highlight design opportunities
 - help narrow the focus of the study
 - be systematic and careful to keep the focus of the study on genuine climate change adaptation issues and not just general design issues.