



Integrated Health Projects by

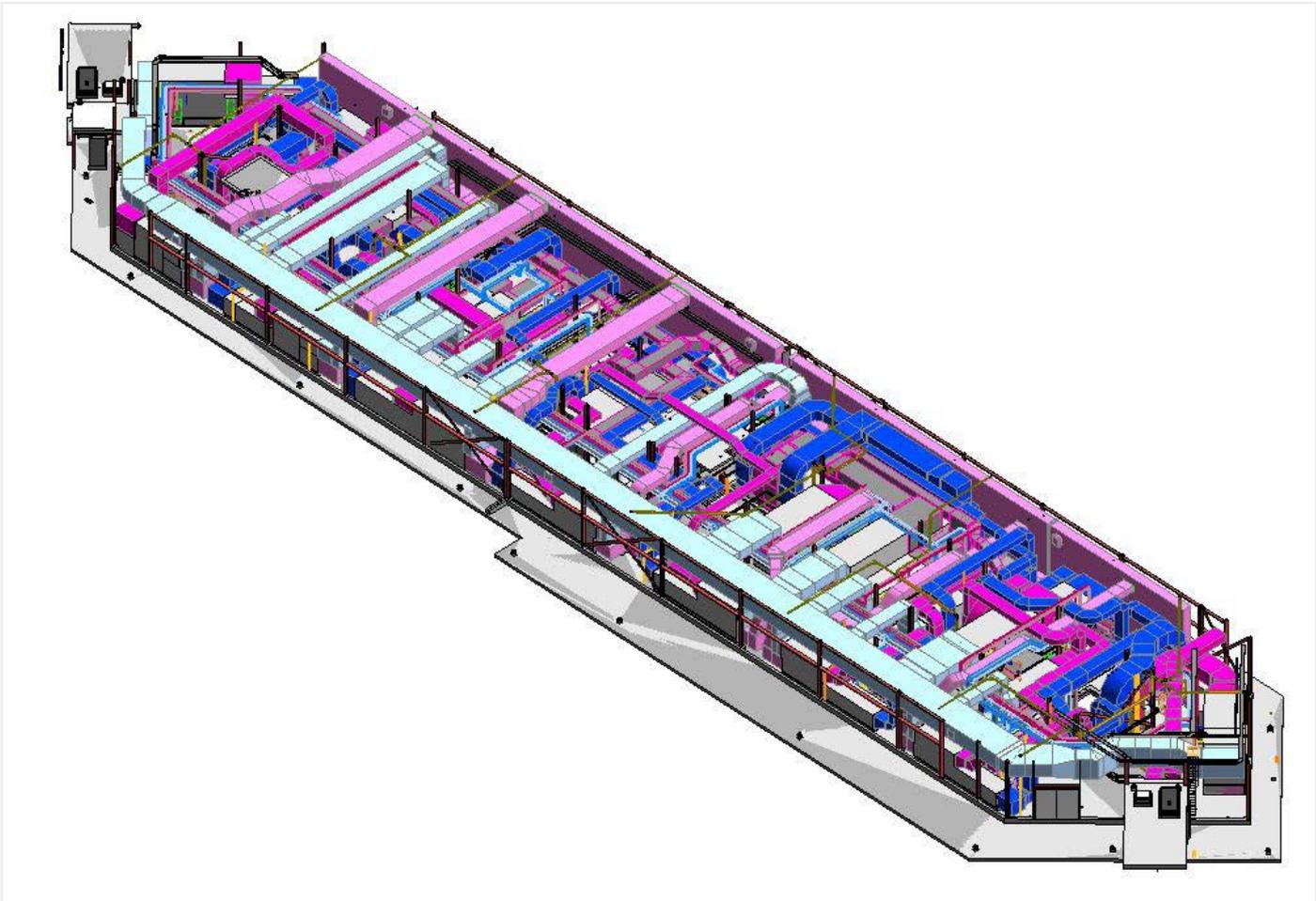


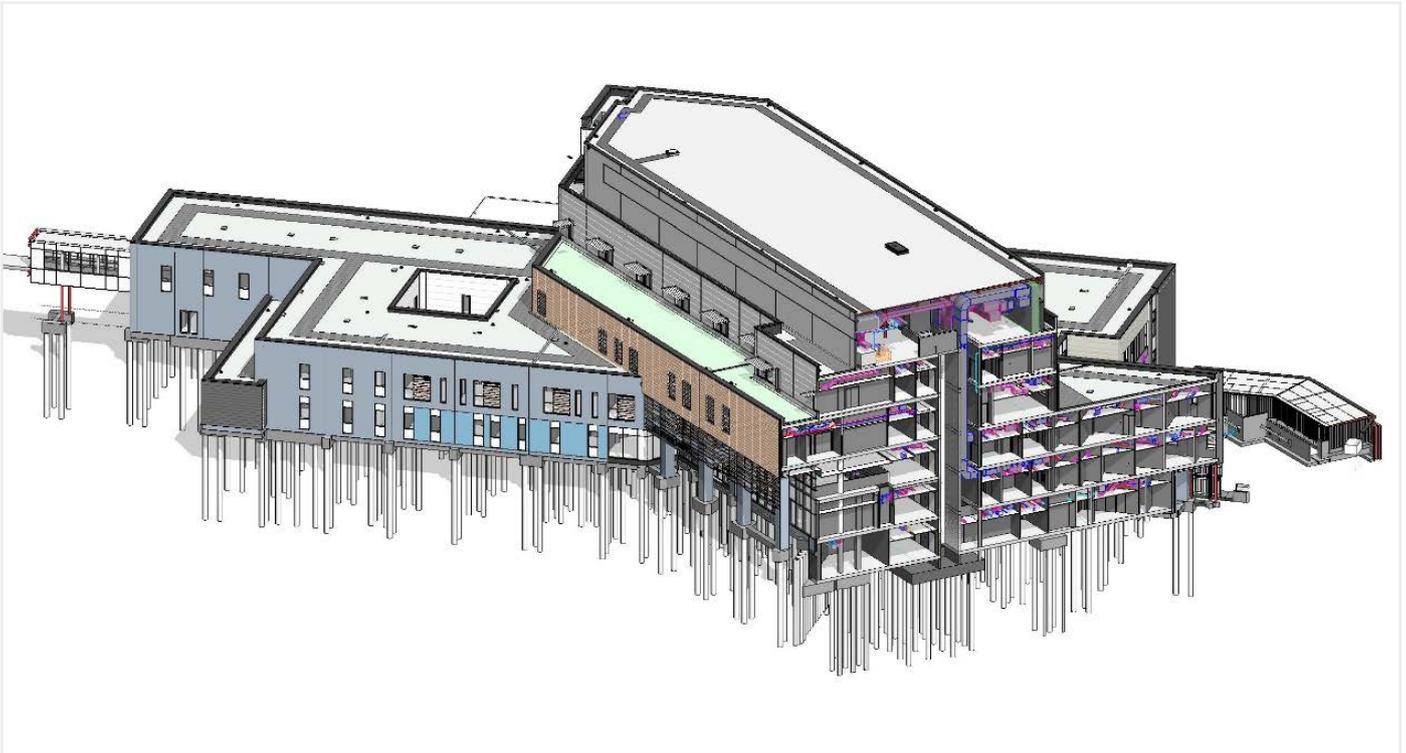
Highly Commended

Best ProCure Project awarded by ProCure22

Chase Farm Hospital Redevelopment
completed under the ProCure 21+ framework







Show the implementation of building information modelling (BIM)

Level 2 BIM is distinguished by collaborative working – the sharing of design information, exported by means of a common file format from the individual models of each party, so that the information can be combined and interrogated. The key principles include the application of processes and tools compliant with PAS 1192:2-2013 including the preparation of a BIM Execution Plan (BEP). This defines critical information including the identification of key milestones and sign off dates, collated under the headings stated in code of practice document PAS1192:2-2013 - e.g. Management, Planning and Documentation, Standard Methods and Procedures and IT Solutions.

In line with these BIM principles of collaborative data sharing, on Chase Farm common file naming/drawing numbering systems to PAS 1192-2:2013/BS ISO 12006-2:2001 were adopted, facilitating use of 'Viewpoint' as the Common Data Environment (CDE), which holds an ISO 27001: Information Security Management certificate. This included hosting / distribution of project models, documents and drawings via this single site, RFIs/NEC3 change control / other correspondence were managed and linked to already uploaded content. All the designers and supply chain partner's models / drawings and associated production information were issued to the CDE for distribution through agreed approval gates.

This along with the integration of Codebook into the Architects Revit model and workflows to produce coordinated Room Data Sheets, and associated C-Sheets and equipment lists, enabled the whole

design team to work fully in accordance with the principles laid out to deliver Chase Farm as a Level 2 BIM project.

This embraced the required communication, collaboration and the reutilisation of information for multiple purposes:

- + Fully co-ordinated design and construction
- + Visualisation of design for stakeholder engagement and familiarisation
- + Intelligent data module for the effective long term operation and maintenance of the building

Highlight the development of standardised products and repeatable rooms

Chase Farm Hospital's redevelopment was achieved at an unprecedented speed for a scheme this complex and large within the NHS.

Pre-construction period (following IHP appointment)	6 months
Construction start to handover	34 months

This was in a large part enabled by the adaption of the evidence based P21+/22 Repeatable Rooms and Standard components as a starting point across 43 single bedrooms and 2 number 4 bed bays.

As these were developed in conjunction with, and signed off by, the clinical Royal Colleges this reduced the amount of clinical stakeholder engagement required. This saved time and reduced the need to take staff away from patient facing activities.

To provide confidence we laid out the high-volume rooms so all could see and be reassured on their operational suitability.

It also reduced time by enabling the designers to draw upon the free to use P21+/P22 downloadable Repeatable Room designs.

These time savings provided for and contributed to the rapid preconstruction period and drove down associated costs.

The P21+/P22 Standard Components were also widely adopted to benefit from the quality and cost assurance work that has been done at Framework level. This again saved time and importantly gave both IHP and the Trust confidence on value for money in relation to both capital and lifecycle costs.

Standard Component	Saving
Flooring, ceilings, doors, paint	£199,305
Lighting, bed head services	£134,375
Sanitary ware, AHU's, fire & smoke dampers	£214,302
TOTAL SAVING	£547,982

In addition to these capital cost savings there are significant whole life cost savings arising from the use of standard components including the clinical wash hand basin (IPS) Panel System.



The stakeholder and design time/cost savings arising from the use of Repeatable Rooms along with these Standard Component savings were significant in delivering this major Project within the affordability budget.

This 23,000m² Acute General Hospital with a construction value of £130m+ is the largest Project completed under the P21+ Framework.

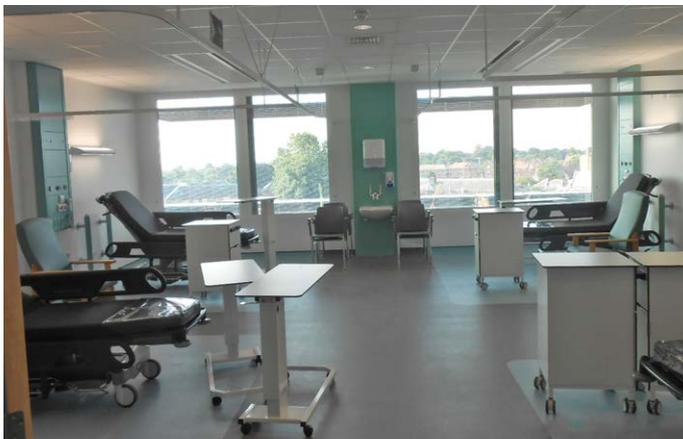
IHP's delivery of design, GMP and construction in 42 months from appointment and within the Trust's budget is unprecedented.

The combined capital/whole life savings from the use of Repeatable Rooms and Standard Components along with the associated clinical stakeholder and designer input is estimated to be in the £m's.

'The Estates Team is very proud to have delivered the only completely new General Hospital on the 70th anniversary of the NHS. We believe it sets an example of what can be delivered nationally.'

Natalie Forrest,
Chief Executive Officer, Chase Farm Hospital

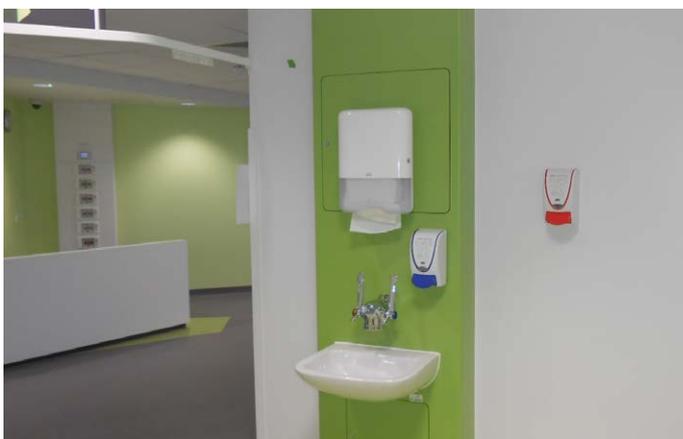
70
YEARS
OF THE NHS
1948 - 2018



4 bed bay



Single bedroom



Clinical wash hand basin assembly



Clinical wash hand basin assembly

Show efficiency within the project including cost, sustainability and carbon reduction.

This Project has delivered on key Government objectives in the Naylor Report and Construction 2025, around reducing time, cost and carbon emissions and delivering sustainability:

- + Sustainable strategy enabling the estate to support transformation in the NHS
- + Delivery of housing (including key worker), a primary and secondary school
- + Reduction in the overall time, from inception to completion for built assets (pre-construction design period reduced to 6 months)
- + Reduction in carbon/greenhouse gas emissions
- + Power, heating, hot water and cooling supplies for the new hospital is provided by the new Energy Centre that forms part of the Project.

This includes a gas-fired CHP that provides heating and power, while thermal stores inside the Energy Centre will allow its more efficient use, enabling storage of heat until it is required. The Energy Centre also has the capacity to support the heating requirements of the schools, housing and Mental Health Trust buildings that will share the site.

This Energy centre delivered via ESCo procurement model, a first for P21+/P22. It has been fitted-out and will be operated and maintained by EDF Energy under a 15 year contract with the Trust, procured via the Carbon Energy Fund. The operating contract provides guaranteed savings for the Trust for that period, generating a significant operational saving to the Trust as well as guaranteed supplies.



This state-of-the-art Energy Centre meets Trust and Local Authority energy and carbon reduction targets.

- + Reduction in greenhouse gas emissions (carbon saving of 116 tonnes/pa).
- + The combined CO₂ emissions equates to an improvement of 45.3% exceeding the 35% target.
- + BREEAM Excellent

To achieve this, we set clear strategies for engineering systems, following the London Plans “lean, clean and green” approach. The “lean” performance exceeds the Part L2A carbon targets, even before we apply the further improvements. The addition of gas fired CHP further reduces the hospitals carbon footprint.

The landscape around the hospital is part of the healing process, with routes linked to therapeutic gardens and exercise equipment. Sensory planting engages all senses, with natural SuDs solutions, green roofs and walls encouraging diversity.

The Energy Centre	<p>BREEAM[®] FOR A SUSTAINABLE FUTURE EXCELLENT</p>	<p>CARBON FOOTPRINT</p> <p>Saving 116 Tonnes per year</p>
	<p>CO₂ EMISSIONS</p> <p>Improving 45.3% exceeding target</p>	<p>THE LONDON PLAN</p> <p>Lean, Clean and green</p>

Show the level of understanding of the specific needs of those who will be using the building.

There were open days for the community and patients to view the new hospital designs and to give their opinions. Thankfully, most if not all, the feedback was positive towards the proposals that have now been delivered.

We had a full days stakeholder workshop with full size mock ups, models, innovative equipment to hundreds of Trust staff.

IBI worked with the Trust to select a group of exciting artists to create art for the new entrance, funded by the Royal Free Charity.

Involving the local community and key stakeholders throughout planning and development was critical. A failure to deliver promises in the past meant the Trust faced a major credibility gap with the local community, politicians and other stakeholder organisations.

This time it would be different. The Trust committed itself to a series of stakeholder meetings during pre-construction, many in public, to share the plans and build support. Extensive pre-planning discussions with the Planning Authority, GLA and Transport for London took on board comments and reflected these in the design. Key health commissioners were invited to be members of the Programme Board, overseeing the development.



Site hoarding artwork unveiled by children from Wilbury Primary School



Students of Haringey/Enfield College to their Academy for an Introduction into Dry Lining Techniques



'Construct With Us' event with Enfield Council at The Nightingale Academy and Winchmore School



Pirates of Chase Farm Hospital nursery



'Open Doors' - taking the public behind the scenes at Chase Farm

Our IHP Clinical Engagement Manager's input was welcomed by the Trust:

“At the start of the process Alex’s input was critical. She was the interface between Clinicians and IHP acting as translator. Her knowledge allowed clinicians to test what was possible in the moment, but also know what wasn’t possible, so they never left sessions with unrealistic expectations.”

Natalie Forrest, Chief Executive Officer, Chase Farm Hospital

If there was frustration on the part of the local community, there was also scepticism from staff and clinicians. To build support, the we held a series of major events, off-site and attended by over 100 staff at a time. These visioning days looked at what the new hospital could be, started to challenge how things were currently organised and what new models of working could be used –to improve care and financial stability.

Innovation was at the heart of new model, reflected not only in the design (inclusion of barn theatres and generic outpatient’s units), but also by using IT to deliver a ground-breaking, digital hospital, and new working practices (including 3 session days and new clinical roles).

The Trust and IHP will jointly undertake a Post Project Evaluation (in line with NHSI Business Case Requirements, Annex 8 Checklist) for inclusion within the Trust’s Project Completion Report within 6 months of occupation. This will capture and feed back to NHSI all learning and best practice arising from the Chase Farm development process.

Looking ahead, we will undertake Post Occupancy Evaluations at 12, 24 and 36 months. This will capture the specific business case benefits, in conjunction with the NHS Efficiency and Productivity Targets and compare these to what is being achieved at each evaluation. The outputs from these will enable the Trust to refine the way it operates within the facility to optimise outputs and share this information across the NHS to enable continuous improvement.

The new facility simplifies wayfinding, travel distances for staff, patients and visitor alike.

Entry is at both ends of a double height, airy concourse, with mobile help points. The outpatient department is broken down to form a village, with double height waiting zones and views over the countryside. Each zone has stairs to encourage walking. Wards are on the top floor, with each room having a view.

The south facing plaza acts as a focal point for the adjacent housing and a facility for all to enjoy an outside space, as an extension to the café and shopping facilities.

“It was an absolute pleasure to work with you [IHP] and all the teams involved. You did it! As clinicians we are all very happy with our new accommodation. So you are my stars, please say a big thank you to the team.”

Julia Chapman - Matron, Chase Farm UCC



Chase Farm Hospital Trust Team





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