



CAMBRIDGESHIRE QUALITY PANEL

REPORT OF PANEL MEETING

Scheme: Cavendish III Building

Date: Friday 7th July, 2017

Venue: Maxwell Centre, Cambridge West Site

Time: 14:00pm – 16:00pm

Quality Panel Members

Robin Nicholson – Chair

David Prichard

Oliver Smith

Lynne Sullivan

Simon Carne

Nick James

Panel secretariat and support

Alokiir Ajang – Cambridgeshire County Council

Stuart Clarke – Cambridgeshire County Council

Local Authority Attendees

John Evans - Principal Planner (New Neighbourhoods) - Cambridge City Council

Jonathan Brookes – Principal Urban Designer – Cambridge City Council

Applicant and Representatives

Professor Richard Philips – Cavendish Laboratory

Luigi Scalera – University of Cambridge

Mark Parsons – University of Cambridge

Julian Dickens – Jestico and Whiles

Heinz Richardson – Jestico and Whiles

1. Scheme description and presentation

Consultants Jestico and Whiles

Applicant Cambridge University

Planning status Detailed application



2. Overview

The site is located on the west side of JJ Thompson Avenue at the junction with Madingley Road. The land is currently used as paddocks for the Veterinary School and Merton Hall Farmhouse.

The pre-application proposal is for the relocation of the existing Cavendish II laboratory facility, in the south east corner of the West Cambridge Campus to the new location. The Cavendish III Building will include the following:

- Four levels of accommodation
- 38,600 sq. m of footprint (with approximately 85% plot of coverage)
- Research laboratories
- Workshops
- Shared collaboration / amenity space
- Office and teaching space

The building falls within the Green and Central Green Link key spaces within the Design Guide which accompanies the West Cambridge Campus outline application (16/1134/OUT). It is proposed to be built in two phases, Phase 1 provides for the majority of the building and Phase 2 is for a small addition in the north east corner of the plot.

The proposal will come forward as a separate full planning application.

Pre-application discussions have included Cambridge City Council, Community Forums and the Disability Panel. This is the first time the scheme has been presented to the Quality Panel.

3. Cambridgeshire Quality Panel views

Introduction

The Panel's advice reflects the issues associated with each of the four 'C's' in the Cambridgeshire Quality Charter. The comments below include both those raised in the open session of the meeting and those from the closed session discussions.

The Panel Chair stated that David Prichard and Oliver Smith had previously been involved with the development of the West Cambridge masterplan, however, they have had no recent involvement. It was agreed that their full engagement in the Quality Panel discussions would not be a conflict of interest.

A representative from the Physics Department presented a brief history of the Cavendish Laboratory and explained that over the last 20 years the current building had served its users well, however, the requirement for the new building is that it needs to meet the requirements for modern day research and learning.

The Panel understand that it is a sensitive building because of the technical laboratory and associated conditions it requires. It has been important to understand the specifications and requirements of the client.



Community

The public space at the entrance will create an environment for the public and learning outreach programmes and school visits. The Panel supported this ambition and the emphasis on collaborative learning and considered that it has great potential.

The Panel was concerned about the adaptability of the internal space, about the ability of the proposed arrangement with the offices above the laboratories to be reconfigured into clusters or other formats. The applicant explained that if patterns of work change, the building can be altered to fit another use such as laboratory or office space.

The applicant had considered how people will meet and interact in the circulation spaces. The Panel supported the generous 3m wide corridors as this would create places to dwell and meet but felt that additional stairs might make vertical connections easier. Panel were satisfied the internal arrangement reflected the needs of the building users.

The third floor common room could be an interactive space for its users with stunning views.

The Panel were pleased to hear that there is an art strategy within a wider cultural strategy for the West Cambridge campus with the building playing an important part in establishing this.

The Panel welcomed the ethos of well-being and were pleased to hear about the emphasis on the welfare of the students and staff.

Further information should be provided explaining how the proposed spaces can be adapted over time and how future expansion of the Cavendish will be accommodated.

Connectivity

The Panel was concerned about the need for the entrance to be democratic and queried how various users will access the building. This includes the public and students by foot or bike. Panel considered the main flight of steps rather intimidating. There is an opportunity to accommodate additional landings as this would be another place for people to interact/ socialise. Well-positioned seating would also encourage this.

The applicant explained that the entrance is designed as a response to the current building which has many accesses (circa 28) to the building. This was accepted but the Panel felt there may be a way to make the ground floor entrance more easily visible.

The design aspires to create an enjoyable experience whilst walking around the building with a series of courtyards with views to look onto and through. Internal connectivity was supported.

Access and movement was discussed and the applicant explained how they intend to create a cycling and pedestrian network connected to JJ Thompson Avenue. They elaborated on how the layout is intended to provide direct routes and limit signage to



reduce visual clutter. The bike storage will be screened by planting. There will be a travel plan in place to promote sustainable travel options.

Character

The primary function of the Cavendish III building is for scientific research and one of the key requirements for the client is for the building to be vibration free, due to the sensitive equipment used.

Through the evolution of the design and a vibration survey the south western part of the building was identified as the most suitable location for the laboratories. The main research spaces will be around the centre of the building with the utilities and services in 4 wings.

The Panel were most concerned about the need for a small Phase 2 right at the entrance to the campus because there is a possibility that it may not be delivered in the right way or at all. The Panel felt that it would be beneficial (and cheaper) to complete the building in a single contract.

The Panel felt the 3 primary courts were rather rigid but were partially reassured that each court will have its own distinct character; two pocket landscape gardens to the east of the site and two to the west; the Panel was concerned about the inaccessibility of the latter.

The ground floor is primarily occupied with laboratories and as the building progresses upwards the proportion of laboratories decreases and the amount of offices increases. The public area will include lecture theatres which will be visible out across JJ Thompson Avenue.

The Panel liked the gravitas of the building but encouraged the team to keep the vertical mullions simple and strong.

The Panel were keen for JJ Thompson Avenue and its landscape to be a part of the red line area as it is the “face” of the development. The modifications to JJ Thomson Avenue envisaged in the outline application should be delivered by this project.

Climate

The Panel were content with the building’s response to the environment but was concerned about the natural ventilation of such deep spaces. They suggested that it will have a challenging energy profile as the building will use a lot of electrical equipment. The Panel felt that the University and the masterplan need to consider how it will work towards zero carbon energy.

Issues relating to adaptability and future climate issues were discussed and the applicant explained how there will be a ground source heat pump which will serve both the Cavendish III Building and the Shared Facilities Hub. All the offices and corridors will be



naturally ventilated. There will be low level louvres with photovoltaics on a brown and blue roof; the Panel encouraged the inclusion of a green roof.

Panel questioned potential overheating to the west facing glazed elevations. It was explained that vertical fins will mitigate potential overheating.

As part of the whole site water management, the Panel asked whether there would be planting over the water attenuation tanks and the applicant said they will be covered with hard landscaping.

The Panel were pleased to hear that applicant was carrying out daylight modelling, especially into the courts.

The Panel supported the applicant's ambition to achieve BREEAM excellent.

4. Conclusion

Overall the Panel was impressed by the handling of such a complex organisation and supported the way the scheme was developing. They were pleased to hear the building had evolved through collaborative work with various stakeholders and thanked Professor Philips for his useful and insightful explanation in support of a strong presentation of the design.

The Panel raised concerns about the delivery of Phase 2 as this is a prominent part of the building and entrance to the site and stressed the advantages of finding ways to deliver the whole building in a single phase.

The Panel made the following recommendations, further details can be found above:

- The external staircase currently comes across as institutional, so consider using landings for dwelling and sitting; this would allow users to see who is walking up and down the stairs and make the ground floor entrance more visible.
- Consider the range of places where people may dwell and interact, for example landings and seating areas, the interconnectivity between floors and the long term flexibility.
- Consider how lighting will be used at night.

The Panel highlighted the importance of delivery of Cavendish III, which will benefit the whole of the West Cambridge campus and beyond.

APPENDIX 1 – Cavendish III

