The Greater Cambridge Design Review Panel

Pre-application ref: PPA/23/00017

Land south of Coldham's Lane, Cambridge: 'Project Newton'

Thursday 8 June 2023, Hybrid meeting

Meeting venue: Boardroom, Stantec, 3rd floor, 50-60 Station Road, Cambridge, CB1 2JH

Confidential

The Cambridgeshire Quality Charter for Growth sets out the core principles for the level of quality to be expected in new development across Cambridgeshire. The Greater Cambridge Design Review Panel provides independent, expert advice to developers and local planning authorities against the four core principles of the Charter: connectivity, character, climate, and community.

Attendees

Panel Members:

Maggie Baddeley (Chair) - Planner and Chartered Surveyor
Helen Goodwin (Character, Community) - Head of Programmes, Design South East
Kaori Ohsugi (Character, Architecture) – Director at Stanton Williams
Paul Bourgeois (Character, Climate) - Industrial Lead at Anglia Ruskin University
Dave Murphy (Character, Connectivity) – Transport Consultant, Associate at Momentum
Vanessa Ross (Character, Landscape) – Chartered Landscape Architect, Director, arc Landscape Design and Planning Ltd

Applicant & Design Team:

Stewart Kain (Mission Street)
Colin Brown (Mission Street)
Darryl Chen (Hawkins/Brown)
Anthony Lazarus (Hawkins Brown)
Daniel Rea (Periscope)
Georgia Elliot-Smith (Element4)
Will Fayers (Paul Basham Associates)
Andrew Fisher (Stantec)
Richard Maung (Stantec)

LPA Officers:

Bonnie Kwok – Principal Urban Designer/Panel Manager
Cuma Ahmet – Principal Planner
Elizabeth Moon - Urban Design Officer
Helen Sayers – Principal Landscape Officer

Observer(s):

Phoebe Carter – Senior Planning Officer

Declarations of Interest:

The architect of the scheme is from Hawkins/Brown, an architectural practice founded by one of the Chairs of the GCDRP Russell Brown. Given that none of the Panel Members have had any involvement with Hawkins/Brown in this project, it is considered that there is no conflict of interest.

Previous Panel Reviews

None

Scheme Description

A hybrid planning application for research and development lab/office buildings, including a community hub on Parcel A and publicly accessible spaces on Parcels B and C for combined open recreation and wildlife/nature conservation uses.

Full detailed elements of the future planning application would include:
1. First building plot on Parcel A which will comprise supporting landscape, (new) road access, car parking and hub/community facilities.
2. New public access points, biodiversity enhancements, landscape improvements on Parcels B and C which are to be retained and managed in perpetuity for community open recreation and nature/wildlife reserves.

The outline elements of the hybrid application would relate to parts of the north and southern sections of Parcel A. Parameter plans in conjunction with a Design Code would be provided to form a framework for securing high design quality for each of these elements.

Site context

The site comprises three separate land parcels, referred to as “Parcels A, B and C”, all of which are located to the east of the city centre, on the west of Cherry Hinton and to the south of Cambridge airport. The Cambridge to Newmarket railway line runs east to west through the middle of the sites.

The parcels were former pit workings which were excavated for the purpose of manufacturing cement. Following their closure in the 1950s, the pits to the north of the site (Parcels A and B) were used for domestic and commercial landfill and the southern part of the sites (Parcel C) were allowed to fill with water to form lakes (also known as “Burnside Lakes”). Land contamination is a significant constraint given the historic former uses. Public access to all three site parcels is currently restricted by perimeter fencing.

Planning history

Parcels A and B have an extensive planning history which date back to the 1970s and mainly relate to landfill operations. However, the most relevant is considered as follows:

21/02326/FUL & 21/05476/FUL (latter ref. is a re-submission) – Hybrid planning applications (with outline and full components) comprising development for commercial floorspace including B8 (storage and distribution) and flexible B8/E(g) (office, research and development and light industrial) on Parcel A; ecological enhancements and landscape improvements including access to Parcels B and C. Applications withdrawn.

C/03/0118: Construction of a footpath and cycleway at Coldhams Business Park – Planning permission granted.

C/01/120: Reserved Matters application for three general industrial (Class B2)/ storage and distribution (Class B8) building (12,626sqm) and two car showroom buildings (1,943sqm) with ancillary offices. Application Withdrawn.

C/91/0550 – Redevelopment for light industrial (B1), General Industrial (B2), Storage and Distribution (B8) and non-food retail (A1) to provide 300,000 sqft. Application Withdrawn.

There are no historic planning applications relating to Parcel

Greater Cambridge Design Review Panel views

Summary

The three interrelated land parcels - A (9 hectares), B (8 hectares) and C (15 hectares) - combine to create what is very much an ‘opportunity site’. There is a great deal to commend in the presented project, in terms of its aspiration to be a ‘globally significant science destination. There are also some good emerging landscape principles. BREEAM ‘Outstanding’ should be the standard to aim for, if the project is to reach the sustainability targets of an exemplar development.

The challenge, however, will lie in trying to deliver all of the project’s aspirations; they need to be grounded in reality and more clearly explained. It has been difficult for the Panel to gain a real sense of what kind of a place this will be - particularly for the

Cherry Hinton residential community - when it is also being described as a local destination. There is a need to communicate what the project will give to the local community in terms of their future access to Parcel A's proposed green and blue infrastructure, and their use of amenities that will be shared with the site's business occupiers. This may be achieved by providing clearer explanations, and revising and adding to the presented drawings.

For Parcel A's massing, it has proved to be very hard for the Panel to understand how, in terms of context, the design team has reached the layout presented; a series of awkward landscape spaces between buildings are being created. The scale and heights of the proposed buildings have not been convincingly justified either, being so much taller than all others in the surrounding context. Despite proposing 'more generous conditions' on the edges of the site, there is no clear understanding of its perimeter conditions; a response to 'neighbourliness' needs to become apparent. The options that have been considered but not taken forward need to be presented in the planning application's design and access statement, in particular to show how the proposal's layout, scale, heights and massing have emerged.

The intention of the applicant to submit a single application for parcels A, B and C is supported. The application is however only to be in outline (it being a hybrid, with full details to be submitted for parcel A's main access, the Hub and the pavilion). This approach is of concern to the Panel. Without a full application, there is a great deal of detail that will only be submitted post-permission. This is a clear risk for the local planning authority. Design coding is in the Panel's view needed at the earliest i.e. application submission stage, to provide certainty - particularly around parcel A's character, to ensure that the design team's intention of this scheme not being a corporate campus-type, business park-style development is delivered on the ground. Likewise, the details of the landscape and its intended management need to be 'tied down' at the outset, for example in an outline application-stage, approved management plan and parameter plans - and in a S106 obligation.

The Panel has identified extensive areas of concern, and information / assessments that are currently missing. One clear omission is the townscape and visual impact assessment that is underway; it should have been produced at an earlier stage in the

project, in order to: facilitate a clear understanding of the site and its context; influence the scale, height and massing of the proposed buildings; and show how to minimise / mitigate their impacts.

A follow-up design review is encouraged.

Detailed comments

Community

Access, recreation and play

The Panel is somewhat confused about the identity of this project. It is understood that there will be more than 3,000 people working here, with the development also being proposed as a place for local people too. From the perspective of residents, promoting the development as an ‘urban innovation district’ creates ambiguity. It will lead them to question whether they want to use it, as there will be uncertainty around whether they will feel welcome, or whether it is a place for workers. Using the language of the development creating ‘an immersive and restorative landscape’ is also ambiguous; the question the Panel asks is ‘what will the project really give to local people?’. Referring also to wanting to create a ‘diverse ecosystem’ and ‘to impart ecological services to the site’ is similarly unhelpful.

As an example of how drawings could help the local community better understand the project, the presentation would have benefitted from including a very long section to demonstrate how the development will be drawn into Cherry Hinton. A set of plan drawings that analyse the wider Cherry Hinton context would be helpful for gaining an understanding of where other local green spaces are located, where local schools are situated and where children will come from to access the site’s proposed new ‘neighbourhood spaces’ and its ‘series of playable landscapes’ (that will include ‘stepping stone’ spaces and ‘play on the way’). It is unclear as yet to the Panel exactly where the children and carers will be walking to, and why. In the review, mention was made of design team workshops for a ‘nature corridor’, and how there is an opportunity to link with high value nature conservation sites. The Panel would have appreciated more information in this regard.

Underlining how the provision of play space will be one of the most critical ways that the local community will be brought into the site, the Panel suggests that the replacement play space(s) for the existing 'Prizon Park' (on parcel A at the southernmost end of Kathleen Elliott Way) should be co-designed with the local community, as one way of helping them be involved in the project.

Community engagement

The Panel could have been told more about the outcomes of the extensive community consultation that has been undertaken to date, to help understand how the proposal is responding to locally-identified need The applicant team advises that there has been a long process of engagement; they have met with many local interest group representatives and community stakeholders, including the Cherry Hinton Residents' Association (who had an introductory session for presenting high level ideas). While the Panel has been told of stakeholders' 'delight' that Anderson's industrial scheme is not being pursued, and that local people want to have access (assumed to be a comment relating to all three parcels), it is of note that ecology and sustainability are also important to the local community.

Climate

Sustainability

The shorter presentation in the design review session has helped deepen the Panel's understanding of the proposal's sustainability goals and objectives. The Panel appreciates the challenging targets that are being posed, and endorses how the entire team is wanting this development to be an exemplar – a 'globally significant destination' - with the applicant also having high ambitions for using this project as an 'exhibition'.

The design team refers to the project advancing sustainable development in the sector. Their starting point is noted as being the '6th Assessment Report, Synthesis Report': referring to the 'Masterplan Sustainability Performance Requirements', the aim is to achieve performance in line with the green band (the red band being standard practice, while planning requirements approximate to the amber band).

The Panel also appreciates the value in the applicant team having recently met with the council's Principal Sustainability Officer and is supportive of their willingness and enthusiasm to work with her so as to develop robust data to use for 'what good looks like' in the development.

All aspects of the project's energy are noted by the Panel as currently being calculated. The design team is aiming for: BREEAM 'outstanding' (and beyond, for water usage); Fitwel 3* rating (by focusing on community benefits e.g. wayfinding, providing water fountains); and WELL for employees. The Panel recommends that other accreditations would also be worthwhile pursuing, including Building with Nature (which addresses sustainable drainage strategies (SuDS), green/ blue infrastructure, community and biodiversity matters).

Reference has also been made to the scheme following Passivhaus principles, with the design team noting that although these have higher embodied carbon than otherwise, there are lower emissions in-use. The Panel advises that this aspect of the proposals must be explained fully at outline application stage, as it is all too easy to use Passivhaus as a term without follow-through.

The most challenging sustainability challenge identified in the review is that of achieving an EUI target of 150 kWh/m sq./ year (energy use intensity); it has been admitted that the project will struggle to reach it. The Panel advises that while the applicant team seeks to differentiate this speculative development from the School of Engineering building that does achieve the target, there are also other, potentially comparable exemplar buildings that could be emulated.

Noting the mentions made of 'meeting' the LETI standard and the proposed use of materials' passports and tagging, the Panel considers that the design team still needs to go further in relation to other sustainability characteristics. For the aspiration to be a LETI pioneer project then this is encouraged and would demonstrate commitment to being an exemplar in the sector. In the Panel's view, energy generation and demand considerations should lead to maximising roof-space used for solar PVs – an appropriate measure for catering for energy flux in the future. The achievable extent of green roofs in this context also needs to be considered, in relation to the different characters of all of the roofs.

In terms of comparable exemplar mixed use sites and developments which demonstrate setting the sustainable development brief to inform the architectural response then the University of Cambridge would be appropriate to consider. The West Cambridge site which includes the civil engineering department's building has demonstrated that their high energy performance targets are achievable during occupation and use. This and the Cavendish III building both use ground source heat pumps which may be a possible option to consider given the land remediation and therefore excavation that is needed across the site.

In all aspects of sustainability, where there is any uncertainty about what target can be committed to, the Panel advises that the design team should state in advance exactly when the relevant target will be set. This commitment should be made as soon as possible.

Site contamination and creating a sustainable landscape

For parcel A, a section cut shown in addition to the presentation (with a blue line for existing levels, a solid red line for the top of landfill and a dashed red line for the top of the existing capping of 600mm) has helped highlight to the Panel the extent of landfill and future decontamination that will be required, as well as the limited widths of the still-retained chalk quarry edges. Parcel A's existing landscape is principally self-seeded species; re-surveying is underway at present. The design team could not advise in any detail on Parcel A's habitats (they include 'invertebrates, dormice and probably bats') although the additional comment was made that its 'biodiversity distinctiveness' is quite low. The lack of information made available is of some concern to the Panel, given how as currently conceived, there is a huge reliance in the project on proposed green and blue infrastructure, and the parcel's new public realm role. Parcel A is also described by the applicant team as being 'the central point of biodiversity', and as being 'highly biodiverse' in the context of the area. The biodiversity target on parcel A has been stated in terms of how it 'can reach 20% or more'. But the presented sections demonstrate - as do various diagrams - how much the design team is trying to achieve in what will be a very shallow capping layer above the landfill, and in the very constrained widths of the former quarry edges. As one example, in one defined area of 'woodland', blue infrastructure is also being proposed, as well as play space. A multi-functional, biodiverse landscape is

acceptable as a principle, but understanding the detail and how it will be managed is critical in all of the constrained circumstances of parcel A.

Connectivity

The project team has stated how they are trying to focus on sustainable travel; the Panel notes the comment that there are also local concerns around the proposed scheme's traffic generation. It would therefore be highly beneficial for any sustainable transport strategy to provide details beyond the boundaries of parcels A, B and C. In particular, the Panel recommends that north / south cycling and pedestrian (and bus) routes from proposed residential and mixed-use development north of Coldham's Lane are included in the assessment underlying that strategy.

Turning to parcel A itself, the Panel expects that employees and visitors from Cambridge's outer suburbs and beyond will either drive to the development, or the nearby park & ride, or travel by rail. A public transport element in the sustainable transport strategy is therefore very important, in discouraging car use and to offer flexibility as demand for parking spaces changes. The Panel notes that a shuttle bus service is also being considered, to react to demand where it arises - no details are available as yet but ideas are being developed.

Active travel modes also need to be placed above vehicles (including servicing) throughout parcel A; from the circulated material and the review presentation, it remains unclear whether the new north / south route through parcel A will cater for cycling, or whether at some point e.g., in the proposed square, it becomes pedestrian-only. Its detailed routing needs careful consideration, as at present (for example) it appears to clip the corner of building 04 (one of the lab / office buildings). It is also not entirely clear how movements across the Tins will be catered for, for moving between the northern and southern parts of Parcel A.

The review presentation, rather than the previously circulated document, more clearly explains that the Hub is in fact a multi-storey parking facility for cycles and cars (as well as its exposed steel structure creating several 'pods' for start-ups). It is currently designed to accommodate all but 5% of the 830 car parking spaces

proposed (with the remaining disabled spaces being dispersed across the site). Consultations with Cambridgeshire Highways have led to 925 cycle spaces (for different types of bikes) included within the Hub. What is not however clear to the Panel about the Hub's parking provision is whether it will cater for both staff and visitors, and / or the public and if so, how access and security would be dealt with. There needs to be a specific understanding of its likely occupancy, and levels of demand / usage. Its 200m. distance from the furthest part of parcel A is also problematic; security will be of some concern for cyclists leaving their bikes so far away from their place of work and it is very likely that the Hub will not be used as intended by the employees in these more distant buildings. How the Hub will work for different prospective users also needs to be explored; it not being sited directly on the principal cycle route also requires reconsideration.

Overall, the Panel would encourage more facilities for cyclists within each of the proposed lab / office buildings; if the applicant team are relying on sustainable transport objectives, then cycling needs to be made as convenient as it can be. The intention is already to provide some changing and showering facilities in individual buildings. AstraZeneca's travel hub that has comparable facilities has been visited by the applicant team and is perceived to be one of the best examples. The Panel suggests that the design team builds on this knowledge and researches more of the excellent examples of other, often speculative buildings that provide extensive facilities for cyclists within them. If cycle parking is to be retained in the Hub, the experience for users' needs to be enhanced, e.g., by increasing daylighting in this area of the building.

The Tins is a great resource for the site and the Panel endorses the principle of opening it up – from the site visit, it does not however appear to require widening. It is unfortunate that there does not seem yet to have been a clear understanding of its principal function, i.e., that of a cycling commuter route to and from the centre of Cambridge. The aspiration for creating stopping spaces along the route is endorsed, although the Panel is not clear from the presented material about its changed character and how this will fit into the wider townscape.

The Panel recommends that the suitability of on-site gradients for all users - and site-wide accessibility - need consideration, particularly checking steepness in the vicinity of the main parcel A access junction.

Character

Landscape

The design team refers to their aim to create a ‘continuous, public and restorative landscape through the site’, one ‘riffing’ on chalk and fenland characteristics. Parcel A’s proposed biodiversity enhancement is also to extend to parcels B and C. But even in normal circumstances – without parcel A’s (and B’s) landfill and the related contamination issues – a chalk landscape can be challenging. The Panel is of the view that there is a clear need to gain a better understanding of parcel A’s replacement capping layer and its extent; it may be the case that proposing ‘woodland’ may be especially challenging. What can be achieved in terms of SuDS and surface water management due to contamination also require more careful consideration; the section cut through the southern part of parcel A has already shown that only up to one-metre-deep attenuation can be proposed. The depth available is even less on the northern part of the parcel. Therefore, the emerging proposals for blue infrastructure that currently include a ‘floodable attenuating landscape that has the dual function of play too’, and the intention for open swales to be created in the depth available all warrant further consideration, alongside the potential below-ground attenuation (for less than 10 % of total volume required).

The proposed strategy for utilising low water-using plants will be key and, in this regard, the Panel restates the need for the design team to be honest and clear about what can actually be achieved.

Given the extent and character of the existing and proposed landscape, the numerous purposes for the public realm to fulfil (including a stated intention to run scientific events in the landscape), and the spatial arrangements of proposed buildings, the Panel advises that all of these matters need to be committed to at the earliest stage. Ideally, this would be through a full application, or at least via a design code submitted with the outline (hybrid) application. Commitment to this level of

detail at the outset is considered to be key by the Panel, as delivery phases will extend over a long time period (and the local community will have to live with construction over the same timescale).

Design

The applicant team has referred to how the three land parcels and the associated cement works adjoining the village of Cherry Hinton were part of City-making. The 'segmented appearance' of Coldham's Lane and anticipating residential and mixed-use development to the north have both been drawn to the Panel's attention as well; together with the review proposal, the changed geography of east of Cambridge has been highlighted. The Panel has also been advised that the proposal itself is intended to fill a gap in the Cambridge market, it being 'a project by innovators for innovators', being also described by the applicant team as a special opportunity, in view of the locations of technology in the City.

The design team's illustrative masterplan is then intended to show that careful attention has been paid to addressing concerns about height, and the proximity of existing homes. But in the view of the Panel, a better understanding of parcel A's edges is needed, in order to help the local community to understand this newly created place. The design team has used an informal arrangement of buildings, to give a variety of spaces. According to the Panel however, the outcome has been one of 'shape-stacking'; there is not a 'family of buildings' as yet. The positions of the various buildings have not been explained, nor a justification given for the triangular 'leftover' landscape spaces between some of them, particularly in the northern part of parcel A. The quality of proposed spaces and their hierarchy are both perceived by the Panel to be fundamental to the project. Information on levels and how heights and massing respond to changes across parcel A and at its edges is needed to help the Panel understand the proposed layout and relationships; the information provided is very two-dimensional at present, with visualisations focusing mainly on the Hub. The Panel notes that the design team has undertaken sun shading testing work and it has been used to finesse buildings; while they have not been presented to the Panel, there have been several design iterations undertaken, to ensure that

the pavilion square receives sufficient daylighting and exceeds BREEAM. No wind studies have been undertaken to date.

Mention has been made of the proposed square as having the dimensions of Granary Square at Kings Cross Central. The success of that square is because of students at the University of the Arts and the strategies used by Argent as developers to activate it; a great deal of work is necessary for such a space to work well. The Panel also questions the location and function of this central square with the amenity pavilion fronting it. It is noted that it is being designed as a communities' resource, for on-site businesses and neighbouring villages, including an events' space, café and tower folly, and that the pavilion is conceived in the manner of agricultural buildings and as a landmark to orientate by, as people move through parcel A. Yet it is currently unclear to the Panel who will visit the pavilion and how the space it fronts onto will be used.

Instead of 'burying' the community facility in the middle of parcel A, the Panel suggests that an alternative location in the vicinity of the current site of the Prizon Park ought to be considered in preference. This location could be a better place for the amenity space to act as a focus for the community; it would be in a location at the heart of cycling routes too. The Panel also suggests that the cycle parking currently within the Hub would be more appropriately relocated to within a redesigned and relocated pavilion, to further support the project's community offer.

Buildings, materials and detailing

The quality of the proposed buildings is fundamental for breaking up their scale. It is intended that there will be a range of spaces catering for different occupiers in the Cambridge 'ecosystem'. The building precedents used however do not indicate a clear identity for the project. While it is understood that a design code would be submitted (it has not been made clear if this would be with the outline (hybrid) application, or subsequently), the Panel has no clear impression of how the range of building designs presented could be coded.

The Panel is particularly concerned about the proposed heights of the buildings and a great deal of justification will be required for them to be convincing. Heights range

from 2 to 5 storeys for the lab/ office buildings and 8 for the central Hub (it having two thirds of the storey height of other buildings, and therefore being only two or so metres taller than the tallest lab / offices). A 5-storey flagship building is proposed at the proposed entrance to parcel A. But plant adds, in effect, an extra storey to each of the lab / office buildings, with up to 5m-tall rooftop plant screens. The design team is noted by the Panel to be working with M and E engineers to break up the areas of rooftop external plant, accepting that they are more visible in longer distance views than shorter. Proposed buildings are set back between 20 and 40m from Katheen Elliott Way and sections presented show that where they are closer to the site's eastern boundary, they scale down. A 25% angle from existing housing on Kathleen Elliott Way has been used to demonstrate this latter point. Nonetheless, the Panel is concerned that the lab / office buildings, and the Hub, will be far larger than any others in the wider urban context. The absence of a presented TVIA prevents further, or more detailed Panel comments.

Very limited information has been presented on the appearance of the proposed buildings but there is a need for a visually coherent ensemble of buildings. The design team refers to the horizontal banding drawing on the site's geological strata and the pre-review document includes various images, with little other information. The Panel is not in a position to comment in any detail but would suggest introducing a hierarchy to developing the façade design shown further.

Aerial view of the site – extracted from the applicant's presentation document 08.06.2023

Indicative layout plan – extracted from the applicant's presentation document

CGI of the Proposed Hub Building – extracted from the applicant's presentation document 08.06.2023

Disclaimer

The above comments represent the views of the Greater Cambridge Design Review Panel and are made without prejudice to the determination of any planning application should one be submitted. Furthermore, the views expressed will not bind the decision of Elected Members, should a planning application be submitted, nor prejudice the formal decision-making process of the council.