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Design Review Report

The Interchange, Cardiff

DCFW Ref: N126

Meeting of 14th June 2018



Review Status

Meeting date	PUBLIC 14 th June 2018
Issue date	28 th June 2018
Scheme location	Cardiff
Scheme description	Mixed-use/public transport facility
Scheme reference number	N126
Planning status	Permission granted for previous scheme

Declarations of Interest

Panel members, observers and other relevant parties are required to declare ***in advance*** any interests they may have in relation to the Design Review and meeting Agenda items. Any such declarations are recorded here and in DCFW's central records.

Ewan Jones of Grimshaw Architects was due to Chair this review day. Grimshaw were among the bidding teams for the original Interchange project which pre-dates that which is currently being consulted upon. Following discussion with the developer and the declaration, Ewan was not present at this review meeting.

Consultations to Date

DCFW reviewed the previous scheme designed by Foster and Partners for this project on 22nd September 2016. DCFW also reviewed the masterplan for Central Square on several occasions from 2012 to 2014. This report should be read alongside the reports from the previous reviews which can be found online at:
<https://dcfw.org/?s=central+square&cat=3&x=0&y=0>

The Proposals

The Site is in central Cardiff on the north side of Cardiff Central Station. The Development forms part of the Central Square redevelopment project. The proposal includes the design and construction of a new public transport facility in the form of a central bus station for the city including provision for 14 bus stands that may also be used for coaches; 265 car parking spaces; 210 cycle spaces. The project also includes commercial mixed-use development above and around the transport interchange including space for shops, 9,943 m² (net) of offices and 301 apartments. Public spaces around the perimeter of the site forming part of the wider Central Square masterplan are also part of the project.

Main Points

The following points summarise key issues from the review and should be considered to inform further design work as the scheme evolves:

Complex design challenge

The Design Commission recognises the challenges and complexities of designing a city centre public transport interchange with office and residential accommodation. In light of the challenges, this review aimed to provide a constructive conversation to best support

the design evolution and the developer team to achieve the excellent quality this site and scheme demands. The team is to be credited on bringing the many complex design issues and constraints into a compliant organisation and form. Having reached this important point there is a considerable opportunity to apply maximum creative design energy and skill to achieving an excellent work of urbanism and architecture for the city. It is imperative that long term public value is achieved through this important public facility.

Tall building design

The tall, residential element of the scheme will have the biggest impact on the city and immediate surroundings and good quality is especially important here. It is suggested that both Cardiff Council's *Tall Buildings SPG* and DCFW's *Designing for Tall Buildings* are referred to.

It would be good practice to methodically and meaningfully test different massing options, for their impact on verified views, public realm environmental conditions and the quality of spaces internally, as well as viability.

To achieve a slender and elegant profile, it may be beneficial to test scenarios for building a taller tower with a smaller footprint. This would make the tower less slab-like. Articulation of the form and design of the façade can also assist in achieving a more elegant appearance. It would be preferable to express the function of cores, for example, to provide the articulation rather than 'sticking on' different façade treatments.

The results of wind testing and solar studies should be used to inform the massing of the tower so that adverse conditions in the public realm are avoided. We understand the test are being carried out at the time of review and would expect the findings to inform next stages.

Façade design

All elevations of this scheme are important in this city-centre location. The design of the façade will contribute to the appearance of the building, but also its performance and the quality of internal office or living spaces. Maintenance and durability is especially important for the tall building, as it will be costly to access for cleaning, other maintenance and repairs.

The façade design should be informed by the environmental strategy and testing, to provide comfortable conditions and reduce energy demand. It would be better for the internal functions of the buildings to guide the façade design and articulation of the different parts of the scheme, rather than relying on 'applied' details. This is likely to lead to a different architectural language for the residential, office and retail/transport elements of the scheme.

Urban design

It is positive that this scheme aims to provide an integrated transport strategy for the city. Many of the urban design issues for the site have been considered in the Central Square masterplan, so it will be sensible to design with regard to the objectives set out in the masterplan.

The 9m grid established across the masterplan site helps to achieve cohesion between the different phases and buildings and rationalises structure and services. The shapes and forms proposed in this scheme depart from the grid.

The resulting impact of such a complex building form adds complexity to the public realm and reduces legibility. A simplified form would be likely to be more cost effective and allow value to be added where it is most effective.

It is important that potential future phases are considered, especially the creation of a new pedestrian tunnel under the railway and remodelling of Central Train Station. Access, legibility and entrances to the Interchange from the potential tunnel, the train station, the stadium and the city centre are important. Entrance locations may benefit from further consideration in light of recent development of future proposals.

Environmental design strategy

A strong environmental strategy should underpin the whole project and inform design at all stages of the project. The strategy should be based on and developed in response to best practice, modelling and testing of site conditions and performance.

Environmental design should inform the massing, form, layout and façade design of both the office and residential elements of the scheme. Environmental performance testing would provide a useful way to evaluate and guide the design which would help avoid subjective opinions about style and appearance and demonstrate a clear design rationale.

Contributing to quality of life

All elements of the scheme will contribute significantly to the quality of the lives of the people living, working, otherwise using and travelling through the building. The public realm, ground floor uses, entrances and retail arrangements will have an impact on user experiences and should take account of wayfinding, legibility and accessibility. The quality of the working environment in the offices will have an impact on staff well-being and productivity and should maximise good daylighting, comfort and ventilation, as well as carefully consider overheating, glare and views.

Quality of life, comfort and the wellbeing of residents in all accommodation, including private rented sector (PRS), is important. Daylight, sunlight, ventilation, heating/overheating, views, privacy, acoustics and building services all need to be considered throughout the design process. Single-aspect, north-facing apartments should be avoided.

Overall, the complexities of the design, including the forms and articulation, are not currently making a sufficiently positive contribution towards quality and usability, and are likely to increase capital, running and long-term maintenance costs. The scheme would benefit from simplification and refinement. Given the many demands placed on the scheme, the need to provide a good public transport facility and successful mix of uses, we urge the team and their partners to focus their further design work on the following:

- Fully integrating the urban block with the city on all sides
- Test and consider dis-aggregating the building mass into visually more discrete elements responding to the scale and form of city centre urbanity
- Respond meaningfully to the adjacent listed buildings
- Use the functional demands of each part to create varied, humane and environmental expression through the refinement of building scale, form and the use of materials

- Continue to use environmental modelling and testing to inform the form, massing, façade design and services strategy to provide a comfortable and sustainable building and public realm
- Maximising the quality of the transport interchange user experience
- Optimise the quality of every apartment living space
- Ensure consistent integrated information systems to assist passenger orientation

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A Welsh language copy of this report is available upon request.

Attendees

Agent/Client/Developer:	Paul McCarthy & Jason Hyett, Rightacres
Architect/Planning Consultant:	Stephen Hill & Luca Inghilleri, HMA John Cottrell, Lichfields
Local Authority:	Claire Moggridge & Lawrence Dowdall, Cardiff Council
Design Review Panel:	
Chair	Carole-Anne Davies, CE, DCFW
Lead Panellist	Steve Smith Amanda Spence, Design Advisor, DCFW Jonathan Adams Richard Woods