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<p><b>Committees:</b> Barbican Estate Residential Consultation Committee (for information)</p>	<p><b>Dates:</b> 03 February 2025</p>
<p><b>Subject:</b> Barbican Podium Waterproofing, Drainage and Landscaping Works (Ben Jonson, Breton &amp; Cromwell Highwalk) Phase 2 – 1st Priority Zone <b>Unique Project Identifier:</b> 11820</p>	<p><b>Gateway 4C Complex Issue Report</b></p>
<p><b>Report of:</b> Director of Community &amp; Children's Services Judith Finlay <b>Report Author:</b> Michael Gwyther-Jones Head of New Developments &amp; Special Projects Housing Property Services Dean Elsworth, Senior Principal Project Manager</p>	<p><b>For Information</b></p>

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<p><b>1. Status update</b></p>	<p><b>Project Description:</b>          Refurbishment of public realm including replacement of waterproof membrane, remedial works to drainage infrastructure, and landscaping works to Barbican Podium Phase 2, 1st Priority Zone</p> <p><b>RAG Status:</b> Red (Red at last report to Committee)</p> <p><b>Risk Status:</b> High (Medium at last report to committee)</p> <p><b>Total Estimated Cost of Project (excluding risk):</b> [Non-Public]  <i>Total Estimated Cost of Project (including risk): [Non-Public]</i></p> <p><b>Change in Total Estimated Cost of Project (excluding risk):</b>          Increase of [Non-Public] since last report to Committee</p> <p><b>Spend to Date:</b> [Non-Public] <b>Costed Risk Provision Utilised:</b> [Non-Public] (of which [Non-Public] amount has been drawn down)</p> <p><b>Funding Source:</b>          In principle approval for central funding of up to [Non-Public] was granted through the previous year's annual bid process, to be met from a mixture of On-Street Parking Reserve and other central City Fund reserves. The maximum that can be funded from OSPR is currently [Non-Public] with the balance of [Non-Public] coming from City Fund.</p> <p>Requested budget to date circa [Non-Public]          This Issues Report budget request [Non-Public]          Construction costs [Non-Public] (latest estimate)          Costed risk [Non-Public]          TOTAL [Non-Public] (inc risk)</p> <p>This results in a funding gap of [Non-Public] (including risk) that will be addressed before the project is able to progress. A CIL application has been submitted to help bridge this gap. Rob McNichol, Assistant Director (planning &amp; policy) is currently reviewing and gathering information to inform the Infrastructure Delivery Plan review, which will enable Members to prioritise the allocation of CIL in future years. Consequently, this bid will be included in that process rather than being taken directly to the Priorities Board for consideration. Additionally, meetings with the Climate Action Strategy team have been held to identify further funding opportunities, given the project's exemplar green credentials. The CIL and CASP application will hopefully conclude by end of 2<sup>nd</sup> QTR 2025. Until the funding gap is resolved and a funding source is identified, the project cannot progress to Gateway 5.</p> <p>There will also be opportunity when tenders are obtained, to review and reduce the extent of the works as the project area is divided into priority zones. If funding is insufficient to complete all zones which comprise phase 2 within the proposed contract a lesser priority zone could be omitted to allow the scope to fit the funding available.</p>
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<b>Estimated Project Costs</b>			
<b>Cost Element</b>	Previous report GW4C	This report (Issues)	Movement
Requested budget	[Non-Public] (incl risk DD)	[Non-Public]	[Non-Public]
Spend to date	[Non-Public]	[Non-Public]	[Non-Public]
Construction Cost	[Non-Public]	[Non-Public]	[Non-Public]
Total Cost (excl risk)	[Non-Public]	[Non-Public]	[Non-Public]
Risk	[Non-Public]	[Non-Public]	[Non-Public]
<b>Total Cost (incl risk)</b>	[Non-Public]	[Non-Public]	[Non-Public]
<b>Funding</b>			
OSPR	[Non-Public]	[Non-Public]	[Non-Public]
City Fund	[Non-Public]	[Non-Public]	[Non-Public]
<b>Total Identified Funding</b>	[Non-Public]	[Non-Public]	[Non-Public]
Funding Gap	[Non-Public]	[Non-Public]	[Non-Public]
CASP fund	TBC		
CIL fund	TBC		

  

- The [Non-Public] funding gap identified in the previous report was made up of the [Non-Public] costed risk allowance and the then increased estimated contract cost of [Non-Public]. Funding was to be identified from savings in other City Fund capital bid provisions or existing budgets. It was also based on the other identified costs at that stage being funded from 80% OSPR and 20% City Fund.
- The original OSPR allocation of [Non-Public] (80% of costs identified at that stage) has subsequently been limited due to overall funding availability to [Non-Public], a reduction of [Non-Public].

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- [Non-Public] funding gap now identified will need to be funded before the next Report from a combination of new CIL and Climate Action Strategy bids with any remaining balance being met, if necessary, from savings in other City Fund capital bid provisions, in order to stay within the overall corporate capital funding envelope. The project scope may also need to be reduced to fit available funding.
- It has been proposed that works to Sculpture Court and Lakeside, part of the Barbican Centre, could be added to the Podium PH II project scope given the similar nature of the work and the cost efficiencies that could be utilised by using the same design team, making use of all their current experience with the podium and site investigations. The Barbican Centre would fund these works directly, via existing budgets or, in the case of Lakeside, if funding for Barbican Renewal is approved. Scope and costs have yet to be ascertained but could be up to [Non-Public]. A mechanism has been included to the Barbican Podium PH II contract to facilitate this if required.

**Slippage:** The programme has slipped 24 months compared to the key milestones reported at GW4C.

There have been major changes to the scope of work required impacting on the delivery of Barbican Podium Phase 2. A more holistic approach has been adopted driven by the City of London's Climate Action Strategy, Biodiversity Action Plan and more ambitious sustainability targets. Increased value has been embraced to meet the City's planning obligations and priorities.

The existing landscape layout is changing with an increase of 70% to the soft landscape greening. This enhancement with added complexity has required further investigation and design of the Grade II\* registered podium particularly around the interfaces with existing drainage, ventilation and structural elements.

With this longer-term vision being adopted, extensive public and stakeholder consultation has been required. This has generated additional technical surveys and investigations and an exploration of viable design solutions. Existing City of London records, drawings and information were also found to contain inaccuracies requiring further survey work to provide assurances for the proposed works.

The designs have also evolved to introduce improved insulation, play, exercise, art installations, wayfinding, improved access, lighting, irrigation system and water attenuation. All of these elements have required integration with the existing fabric, features and infrastructure across the podium.

The proposed scheme includes the removal of 14 redundant vents to the Beech Street covered roadway. The design team has justified this

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strategy of removal by computer modelling. Hoare Lea produced a report in 2013 which categorised Beech Street as a covered roadway and not a tunnel. This is an important definition. Hoare Lea have subsequently been commissioned to update their report specifically to consider the proposed removal of the 14 vents. This has been completed and concludes that removal of the vents does not alter the covered roadway classification. A meeting has taken place with COL Highways team and approval given to proceed with the removal of the vents within the proposed design.

Additional detail provided for the increase of scope as below:

### **Climate Action Strategy & Biodiversity Plan - Increased Greening**

The City of London's Climate Action Strategy & Bio-Diversity Plan published in 2020 challenges all projects across the City of London to comply with the policy criteria. There are three main aims which apply to this project:

- Support the achievement of net zero.
- Build climate resilience.
- Champion sustainable growth.

The change in design approach prioritising climate resilient planting and design required consultation with stakeholders including Historic England, 20th Century Society and the City of London Planning team. Further to this additional public consultation webinars, walkabouts and meetings were all required to communicate the change in design approach.

### **Drainage Investigations and Remedial Work**

The project team has undertaken a stringent lesson's learned review from Phase 1 understanding that the poor condition of the existing surface water drainage system was a significant issue that has remained unresolved. The surface water drainage system to both Barbican Podium Phase 1 & 2 has been surveyed from surface to connection with the sewage system and a methodology developed for clearance, repair or replacement. Following the Gateway 4C report, approval was granted to include the remediation works for Phase 1 into the scope of work for Phase 2.

### **Structural Records**

From existing drawings obtained from Arup it became evident following site surveys that some of the indicated structural columns did not exist. The design team's designs and calculations have had to adapt with this information considered. The change in approach from providing a like-for-like replacement through to adopting an increased greening strategy required weight increases to allow for the additional soil depth and trees. All of the design areas had to be reviewed and could no longer rely on the original like-for-like approach and provided

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data. Innovative approaches have been adopted to offset insulation and a change in screed for the weight and loading calculations.

### **Public Realm Lighting and Electrical Infrastructure**

A new Public Realm lighting system that is safer, eliminates dark spots and is more energy efficient now forms part of the project design. The original proposals retained the existing electrical system. The existing electrical system is currently served by 10 distribution circuit boards which required rationalisation. The revised design will be served by 4 public lighting distribution boards that require new routes for the conduits and electrical runs. The revised design required significant clash detection and interface with existing features, the new design layout and the podium build up.

### **Play and Exercise**

Through the planning consultation process the project team has been asked to expand the provision of play and exercise equipment across the Barbican Podium to satisfy emerging Planning Policy. This has required revisions to the design layout, interfaces and consultation through the planning process to resolve. Due to structural and depth constraints the items have been placed in the planters which required further design to make these fully accessible to all user groups. Innovative plate design foundations were developed to meet the space constraints.

### **Art Strategy**

Through the planning process the project team has been asked to assist with the development of a Public Art Strategy for the Barbican Podium. Future City has developed the strategy including the establishment of a Steering Group for Public Art. Possible locations for the art have been identified in consultation with planning and requirements met to provide power, support and integration within the revised landscape designs. The Public Art Steering Group have recommended a temporary rolling programme of installations as the preferred option, the approach allows the artworks to respond to the ongoing Barbican commission programme, offers a platform to fundraise against and gives greater promotional opportunity. Commissions can be sold to support production funding and keep costs within budget.

### **Irrigation**

The City of London Gardens team have requested that an irrigation system is installed. The irrigation system interfaces with the drainage, build-up of the podium and electrical design. The irrigation system has been adapted to meet the revised design of the planters.

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	<p><b>Water attenuation</b> Water attenuation systems have been introduced to the planters to meet the requirements of City of London’s Climate Action Strategy. This needed to meet the changing planting requirements, soil depths and water attenuation.</p> <p><b>Waterproofing System Warranty</b> In order to establish a warranty, the named supplier Triflex had a set of stringent design requirements and investigations. We have worked closely with Triflex to ensure they fully understand the technical complexity of the podium and are able to offer a warranty for the system that will be installed. This has required extensive design detailing, factory visits, meetings and collaboration with other suppliers.</p> <p><b>Summary</b> The Barbican Podium Phase 2 has evolved from a maintenance project to a holistically designed long term vision for the Barbican. The complexity of the existing issues, interfaces and remedies have required considerable further investigation, consultation and design development. In turn a more complete and longer-term design approach has been established with multiple benefits to the Barbican far beyond just resolving the water ingress issues.</p> <p>The estimated total cost of the project has increased in the region of [Non-Public] since last committee report due to the increase in project scope as detailed above but also impacted by high inflation levels being experienced across the construction industry in general.</p> <p>RIBA Stage 4 Detailed Design has now been completed and the tender enquiry has been published as of 2<sup>nd</sup> September. Tenders are expected to be returned on 18 December 2024. See project program table at Appendix 3.</p> <p><i>Any delays/issues impacting cost/quality/scope/time</i></p>
<p><b>2. Requested decisions</b></p>	<p><b>Next Gateway:</b> Gateway 5 - Authority to Start Work (Light)</p> <p><b>Requested Decisions:</b></p> <ol style="list-style-type: none"> <li>1. Approve an increase in budget of [Non-Public] for increased costs as set out within the financial table at section 3 to reach the next Gateway 5 – Policy and Resources Committee.</li> <li>2. Note the revised project budget of [Non-Public] which consists of the current approved budget of [Non-Public] plus this issues report requested increase of [Non-Public] (excluding risk) as set out in the table at section 3 - Policy and Resources Committee, Property and Projects Sub Committee.</li> </ol>

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	<p>3. Note the updated total estimated cost of the project at [Non-Public] (excluding risk) - Policy and Resources Committee, Property and Projects Sub Committee.</p> <p>4. Approve the Costed Risk Provision of [Non-Public] is approved (to be drawn down via delegation to Chief Officer) - Policy and Resources Committee.</p> <p>5. Approve Option 1 - Policy and Resources Committee.</p>			
<b>3. Budget</b>	<b><i>Complete this section in consultation with your Head of Finance</i></b>			
	<b>Item</b>	<b>Reason</b>	<b>Funds/ Source of Funding</b>	<b>Cost (£)</b>
Staff Costs (Additional)	Project management	OSPR/ General Fund		[Non-Public]
Artwork Design (Additional)	Artwork Consultant to manage the procurement of artwork for the scheme	OSPR/ General Fund		[Non-Public]
Comms Consultant (Additional)	To manage communication with residents and stakeholders	OSPR/ General Fund		[Non-Public]
Faithful & Gould (Additional)	Multi-Disciplinary Designer	OSPR/ General Fund		[Non-Public]
Legal Fees (Additional)	General legal & contract assistance	OSPR/ General Fund		[Non-Public]
Quantity Surveyor (Additional)	Cost Consultant	OSPR/ General Fund		[Non-Public]
Surveys (Additional)	General	OSPR/ General Fund		[Non-Public]



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	<table border="1"> <tr> <td><b>Total</b> (Additional)</td> <td></td> <td>OSPR/ General Fund</td> <td>[Non-Public]</td> </tr> </table> <p><b>Costed Risk Provision requested for this Gateway:</b> [Non-Public] (as detailed in the Risk Register – Appendix 2)</p>	<b>Total</b> (Additional)		OSPR/ General Fund	[Non-Public]
<b>Total</b> (Additional)		OSPR/ General Fund	[Non-Public]		
<b>4. Issue description</b>	<p><b><i>Use numbered points here</i></b></p> <ol style="list-style-type: none"> <li>1. The nature of the original project was primarily a maintenance scheme to replace the defective waterproof membrane and re-instate the entire public realm surface as a like-for-like replacement.</li> <li>2. The scope and remit of the scheme has increased to comply with the City’s Climate Strategy &amp; Bio-Diversity Action Plan.</li> <li>3. The scope of the scheme has also increased following results of intrusive surveys and consultation with City Planning to allow for the inclusion of public artwork installations, renewal of surface water drainage and Infrastructure to both phases I &amp; II, renewal of public realm lighting, new irrigation system, soft landscaping, wayfinding strategy and re-evaluation of Beech Street covered roadway.</li> <li>4. Points 1 – 3 above have all resulted in increased design and support consultant costs as outlined in section 3.</li> </ol>				
<b>5. Options</b>	<p><b><i>Use numbered points here</i></b></p> <ol style="list-style-type: none"> <li>1. Approve requested additional budget of [Non-Public] to achieve next gateway 5</li> </ol>				

**Appendices**

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Risk Register
<b>Appendix 3</b>	Programme Timetable
<b>Appendix 4</b>	Site Plan
<b>Appendix 5</b>	Masterplan Priority Zones
<b>Appendix 6</b>	Construction Zoning Plan
<b>Appendix 7</b>	Cost Book
<b>Appendix 8</b>	Landscape General Arrangement
<b>Appendix 9</b>	Landscape Perspective
<b>Appendix 10</b>	Order of Cost Estimate Summary

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**Contact**

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