ARCHITECTURE DESIGN

Sustainability Summit

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1 FORMAL CPD POINT

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Is a circular built environment possible and if so, how?

1. Define the term circular-built environment and compare it to the traditional linear model of construction.

In your answer, highlight how each model addresses resource use, waste, and carbon emissions over the building lifecycle.

A circular built environment prioritizes reusing, recycling, and regenerating materials to minimise waste and carbon emissions throughout a building's lifecycle, whereas the traditional linear model follows a take-make-dispose approach that consumes resources, generates significant waste, and results in higher embodied and operational carbon.

2. Select or imagine a case study that successfully applies circular principles in the built environment.

Identify two strategies used in the project (e.g., material reuse, traceability tools, or circular procurement models), and evaluate their impact on lifecycle cost, carbon outcomes, and stakeholder engagement.

In the Bullitt Center in Seattle for example, strategies such as material reuse and circular procurement of sustainably sourced components reduced lifecycle costs and embodied carbon, enhanced long-term environmental performance, and engaged stakeholders by demonstrating transparency, accountability, and commitment to regenerative design

3. Which of the following is an essential feature of a circular built environment?

A. Single-use construction materials and components

B. Demolition of structures without material recovery

C. Design for disassembly and reuse of building elements

D. Procurement methods based solely on initial construction cost

Correct Answer: C

Competency Codes: PC 31, PC 35, PC 53, PC 60