

# Conference programme



## Reusing existing structures conference

3 December 2024, 09:30 – 17:00 GMT  
Online and at Bastwick St, London

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09.30	<b>Registration</b>
10.00	<b>Chair's welcome and introduction</b>
<b>Session 1 – Establishing feasibility: analysis and justification of existing structures</b>	
10.10	<b>The role of structural engineers in pre-redevelopment audits and options appraisals</b> <b>Ian Poole, Elliott Wood</b> <ul style="list-style-type: none"><li>• The policy and town planning landscape is changing, requiring additional structural engineering input to support planning applications. What must structural engineers do for early-stage option studies and where should we focus efforts.</li><li>• How can we communicate the benefits of reuse to prevent unnecessary demolition, with case studies examples from recent planning applications.</li></ul>
10.25	<b>Structural robustness in existing buildings - knowing what needs and can be done</b> <b>Chris Gross, Integral Engineering Design</b> <ul style="list-style-type: none"><li>• How do we assess, justify and adapt existing buildings to comply with the robustness and disproportionate collapse rules.</li><li>• Case study examples will highlight different approaches taken to ensure the rules are being complied with when reusing existing buildings.</li></ul>
10.40	<b>Foundations and substructure reuse</b> <b>Alex Nikolic, A-squared studio</b> <ul style="list-style-type: none"><li>• Foundation reuse principles: how and when to unlock opportunities for reuse of substructure elements.</li><li>• Overcoming design assurance challenges (spanning geometrical, geotechnical, structural, durability and commercial drivers).</li><li>• Performance driven design and substructure reuse considerations over the full design and construction lifecycle.</li></ul>
10.55	<b>Session 1 Q&amp;A</b>
11.10	<b>Coffee break</b>

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### Session 2: Reusing concrete

11.35	<b>Retrofitting techniques and methods for concrete</b> <b>Dr Levingshan Augusthus Nelson, Salford University</b> <ul style="list-style-type: none"><li>• Latest research into retrofitting techniques and methods.</li><li>• Challenges in implementing these techniques in real-world concrete structures.</li><li>• Are there any unintended consequences of retrofitting?</li></ul>
11.50	<b>Speaker to be announced</b>
12.05	<b>Reusing concrete: cuts and rubble</b> <b>Corentin Fivet, EPFL</b> <ul style="list-style-type: none"><li>• Reusing sawn concrete to build floor slabs with an unprecedented low carbon footprint.</li><li>• Recovering demolition concrete rubble to make new load-bearing walls.</li><li>• Learning from the first experiences of Swiss architecture and engineering firms.</li></ul>
12.20	<b>Reused concrete in practice: Next generation “precast”?</b> <b>Laura Batty, Heyne Tillett Steel and Charlie Wedgwood, McGee</b> <ul style="list-style-type: none"><li>• From an engineer’s perspective, how can we design with reused concrete, and where is it appropriate?</li><li>• From the specialist engineering contractor’s perspective, how can reinforced concrete structures be dismantled?</li><li>• What practical steps need to be taken to unlock this opportunity?</li></ul>
12.35	<b>Session 2 Q&amp;A</b>
12.50	<b>Lunch and networking</b>

### Session 3: Ex situ material reuse in practice

13.50	<b>Reusing steel: from concept to completion</b> <b>Sally Walsh and Tom McLean, WSP</b> <ul style="list-style-type: none"><li>• Challenges and solutions when reusing steel in construction projects at each stage of the reuse journey, from concept to on-site implementation.</li><li>• How structural engineers can collaborate with the supply chain.</li></ul>
14.10	<b>One Golden Lane: how limitations in donor material will enable engineers to innovate</b> <b>Arthur Coates, London Structures Lab</b> <ul style="list-style-type: none"><li>• Case study example of the refurbishment of a Grade II listed building and 1990s extension with an additional four stories with lateral extensions. The project undertook no foundation strengthening and retained 96% of the existing structure.</li><li>• Practical lessons for developing frameworks that can enable innovation for systematic material reuse</li></ul>
14.30	<b>Speaker to be announced</b>
14.50	<b>Session 3 Q&amp;A</b>
15.00	<b>Afternoon break</b>

### Session 4: Actionable strategies to maximise reuse

15:25	<b>Speaker to be announced</b>
15:55	<b>Enabling reuse industry panel discussion</b> <b>Panellists to announced</b> <p>How can we collaborate effectively across the built environment to overcome logistical barriers, mitigate risks and enable the reuse of existing structures, material and components? An expert panel will discuss and take questions from the audience on topics including:</p> <ul style="list-style-type: none"><li>• Recertification and compliance challenges</li><li>• Circularity best practice across the industry</li></ul>
16.45	<b>Closing comments</b>
17.00	<b>Conference ends</b>

