

Greenbuild International Conference + Expo
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AI Summary

From Vacancy to Vitality: Adaptive Reuse for Housing and Decarbonization

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VOXO

From Vacancy to Vitality: Adaptive Reuse for Housing and Decarbonization
Wednesday, October 21, 2026

Summary

Michael Malinowski opened the session by framing adaptive reuse as a response to the "urban doom loop," where disinvestment, vacancy, and perceived unsafety reinforce one another. He contrasted mid-century demolition-focused urban renewal with the benefits of reusing existing buildings as housing. Citing research, he noted that new construction can take up to 80 years for operational efficiencies to offset its upfront carbon, a timeframe incompatible with climate imperatives. Malinowski positioned adaptive reuse as a way to align surplus underused buildings with urgent housing needs.

Malinowski described petitioning the International Code Council to form an adaptive reuse working group and summarized results from a national architect survey covering over 400 projects. Respondents identified financing and building codes as the top barriers, with most projects still using the International Building Code rather than the International Existing Building Code. He emphasized that nearly every reuse project has required alternate means and methods, and that many architects struggle most with code analysis itself, reflecting gaps in architectural education and awareness of existing-building tools.





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Karin Liljegren outlined development opportunities across building types, from historic properties benefiting from federal historic tax credits to highly vacant Class B and C offices, tall towers best suited to partial conversions, concrete warehouses with deep floor plates, mini-malls on transit corridors, and small industrial buildings. She discussed how system age, reuse potential, and structural capacity can swing costs dramatically. Using Los Angeles as an example, she contrasted the success of its 1999 adaptive reuse ordinance with today's stalled market, shaped by higher interest rates, transfer taxes, and absent financial incentives.

Liljegren then detailed policy and financial tools that help projects pencil out, advocating by-right approvals, streamlined processes, flexibility on age and size thresholds, partial conversions, roof additions, and incentive-based rather than mandatory affordability. She highlighted the importance of low-interest capital, property tax abatement, transfer tax relief, fee reductions, and C-PACE financing. Design strategies to add value included converting mechanical penthouses and double-height spaces into residential area, selective roof additions, creative solutions for deep floor plates, active use of building "bellies," and repurposing oversupplied ground-floor retail for amenities or housing.

Kate Bubriski focused on Boston, describing a city program that combines tax incentives with permitting coordination for residential conversions, now moving seven projects into construction. She explained how her firm studies portfolios of mid-rise buildings, often merging multiple structures to achieve viable unit counts, while testing various use scenarios. A detailed case study of the Congress Square and 40 Water Street block illustrated strategies such as vertical additions, prefabricated expansions, shared cores, structural shoring that becomes permanent, staged envelope and window upgrades, and balancing embodied versus operational carbon within total-carbon analyses.

Scott Campagna addressed engineering considerations, starting with structure as the one immutable element short of demolition. He compared common framing systems and highlighted complications with post-tensioned slabs, especially for dense plumbing penetrations. He explained how office-to-residential conversions typically reduce structural loading but demand full plumbing replacement, careful seismic and balcony assessment, and strategic decisions about reusing or decentralizing mechanical systems, metering utilities, and upgrading technology and acoustics. Panelists closed by outlining quick feasibility checks for developers, the role of incentives and tax credits, and the particular challenges of smaller, disinvested cities.

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Key Takeaways

Adaptive Reuse Cuts Carbon Faster Than New Construction

Speakers explained that new high-performance buildings can take up to 80 years to offset construction-related carbon, time we do not have for climate goals. Reusing existing structures immediately preserves embodied carbon while addressing both vacant building stock and severe housing shortages.

Codes, Education And Early Feasibility Are Critical Enablers

Architects reported that financing and building codes are top barriers, and many practitioners are unfamiliar with the International Existing Building Code and alternate means processes. Quick, pre-escrow code and systems assessments help developers gauge risk, major cost triggers, and viable added floor area.

Policy And Financial Incentives Make Conversions Pencil

Case studies from Los Angeles and Boston showed that adaptive reuse becomes viable when cities offer streamlined by-right approvals, flexible use rules, tax abatements, low-interest loans, historic and low-income housing tax credits, and programs that shorten permitting and coordinate agency reviews.



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