



Phased Retrofits—Single Family Lab 2 Insight Brief

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Phased Retrofits—Single Family Lab 2

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Fabric-first vs. mechanical-first

- Consensus that fabric-first (airtightness, insulation, windows) remains critical.
- Heat pumps without grid decarbonization risk being “greenwashing.”

Incremental/phased retrofits

- Need to define what phased means: sequencing vs. partial measures.
- Must ensure each phase can stand alone if later phases never happen.
- Importance of planning (decision tree, pre-design study) so early moves don’t need undoing.

Certification = quality control

- Certification forces checklists, blower door tests, submittals, and photos.
- Without it, critical steps often get skipped.
- Even non-certified projects need structured verification processes.

Trade training & buy-in

- Trades often don’t grasp the value of continuous insulation/air sealing.
- Training, mockups, and checklists needed.
- Potential vision: national training/roadshow to normalize high-performance building.

Decision-making tools

- A decision tree or flow chart could help builders/clients choose retrofit priorities (roof, windows, mechanicals, etc.) based on project conditions.
- Pre-design studies (with modeling like Honeybee + Matterport scans -> Rhino/Revit) can guide sequencing.

Cost barriers & client communication

- Retrofits still often cost “like building a house on top of a house.”
- Builders wrestle with balancing cosmetic desires vs. deeper performance improvements.
- Framing around comfort, health, and durability helps communicate value.