

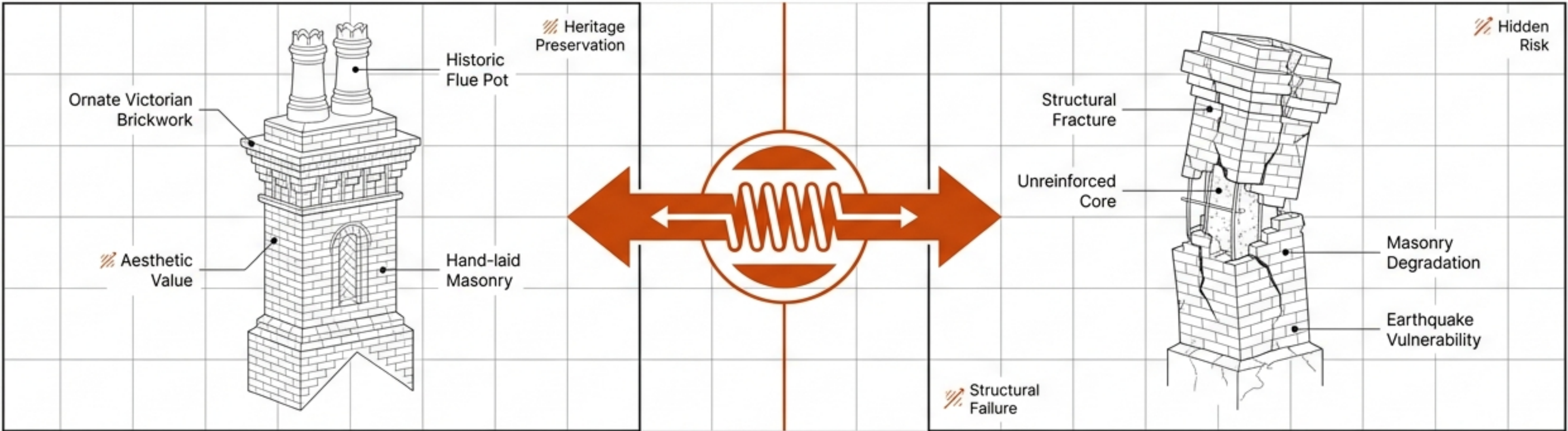


The Heritage Chimney Dilemma

Navigating seismic safety, council consent, and modern heating in historic New Zealand homes.

The tension between preservation and protection

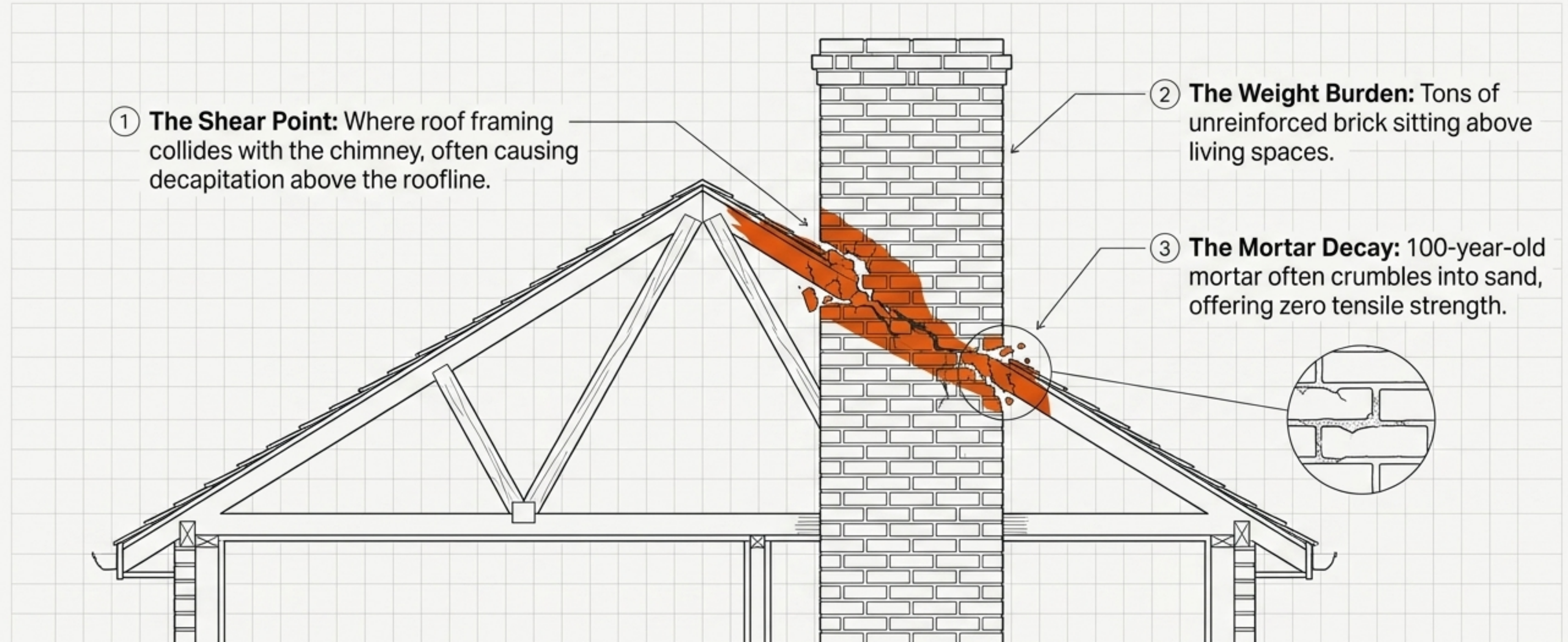
Wellington has a higher concentration of pre-1920 villas (Thorndon, Kelburn, Mt Victoria) than almost any other NZ city. These homes are beautiful, but their original chimneys were built for a different era.



Aesthetic vs. Structural	Historic vs. Clean Air	Owner vs. Council
Unreinforced masonry is a massive earthquake liability. 	Old coal/open fires violate modern emission standards. 	Removing a dangerous chimney often triggers strict Resource Consent heritage overlays. 

The unseen liability of unreinforced masonry

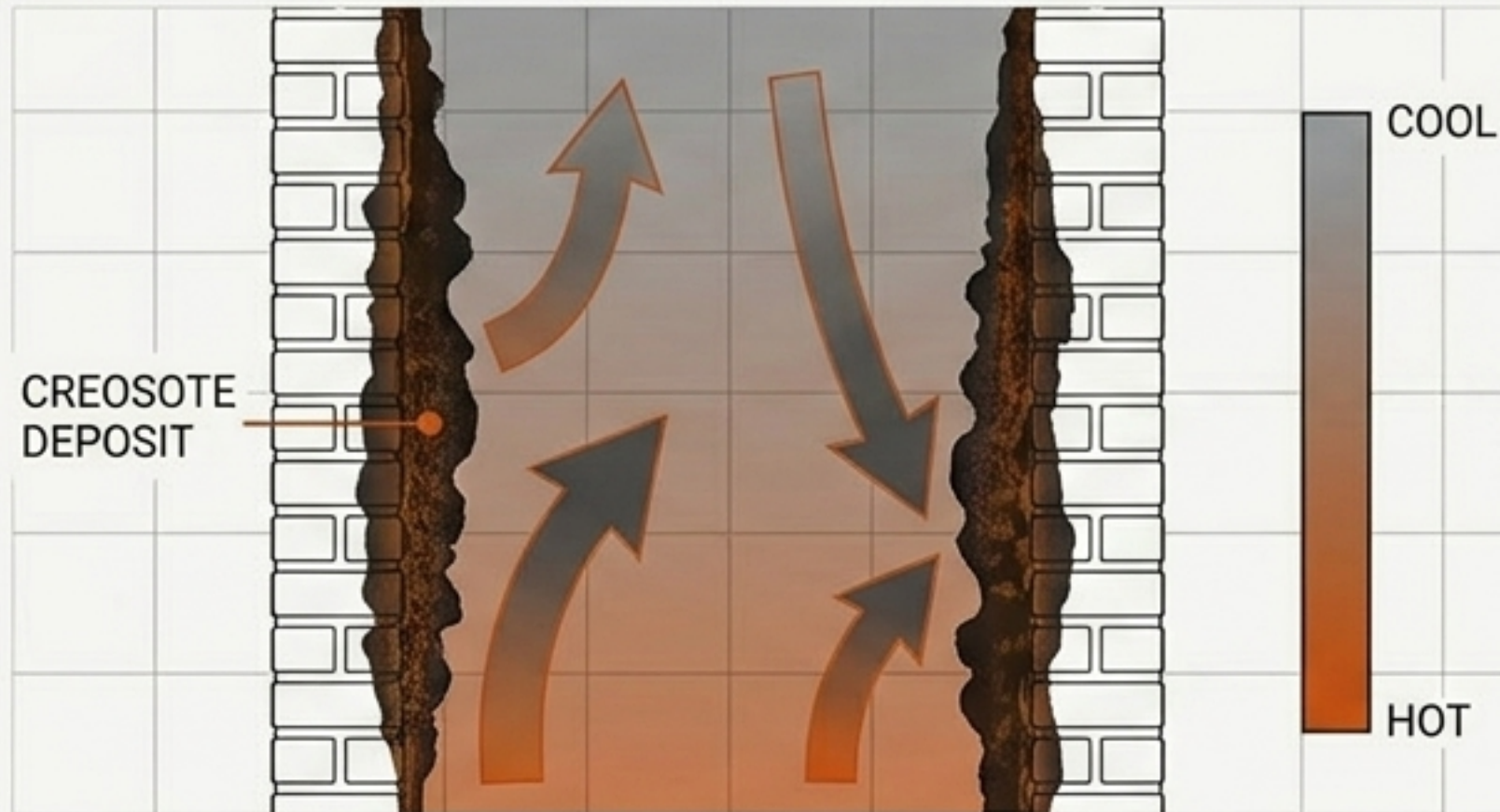
During seismic activity, the heavy, rigid brick stack sways at a different frequency than the timber-framed house.



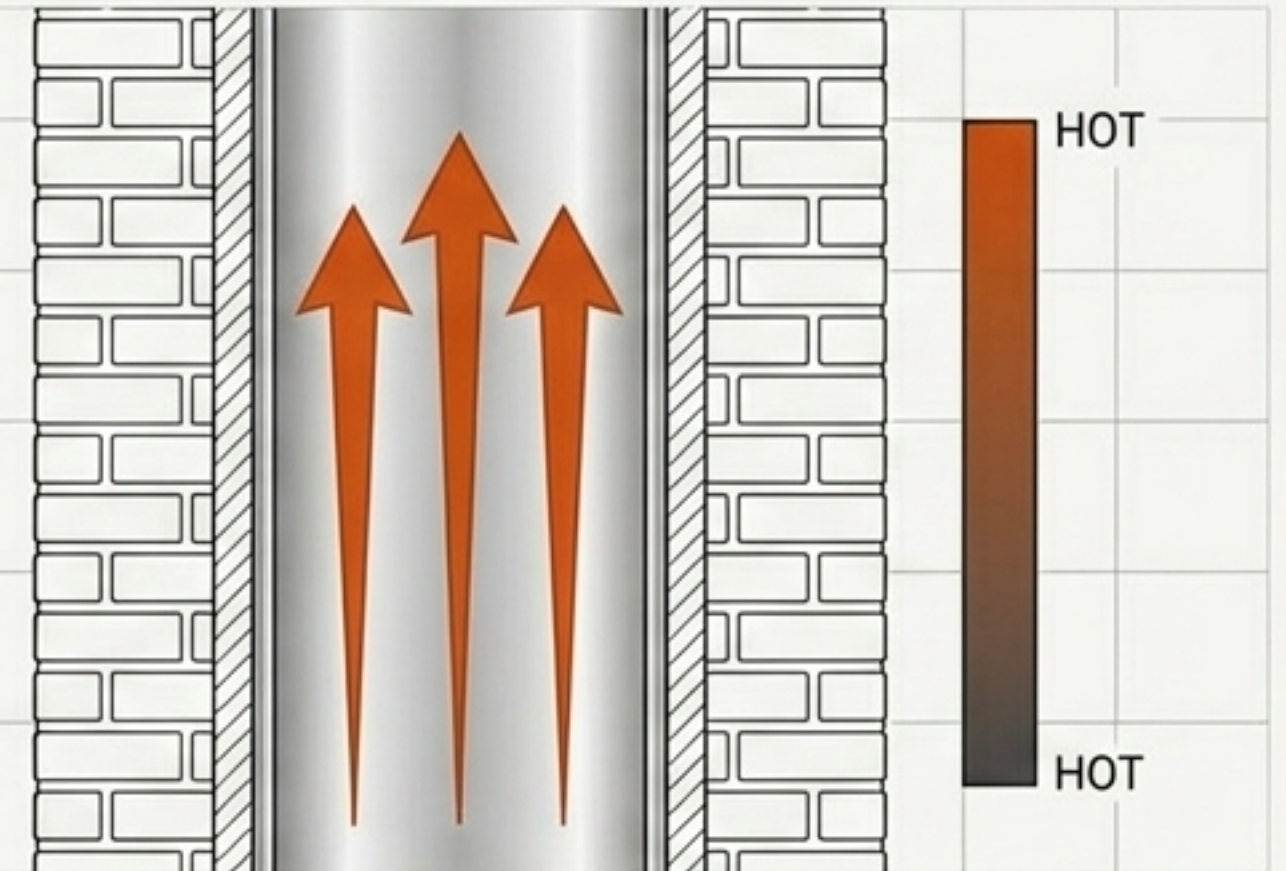
Why 1920s flues fail modern safety standards

Old chimneys were built for coal. Modern woodburners require rapid updraft.

OLD OVERSIZED FLUE (COAL DESIGN)



MODERN NARROW FLUE (STAINLESS LINER)

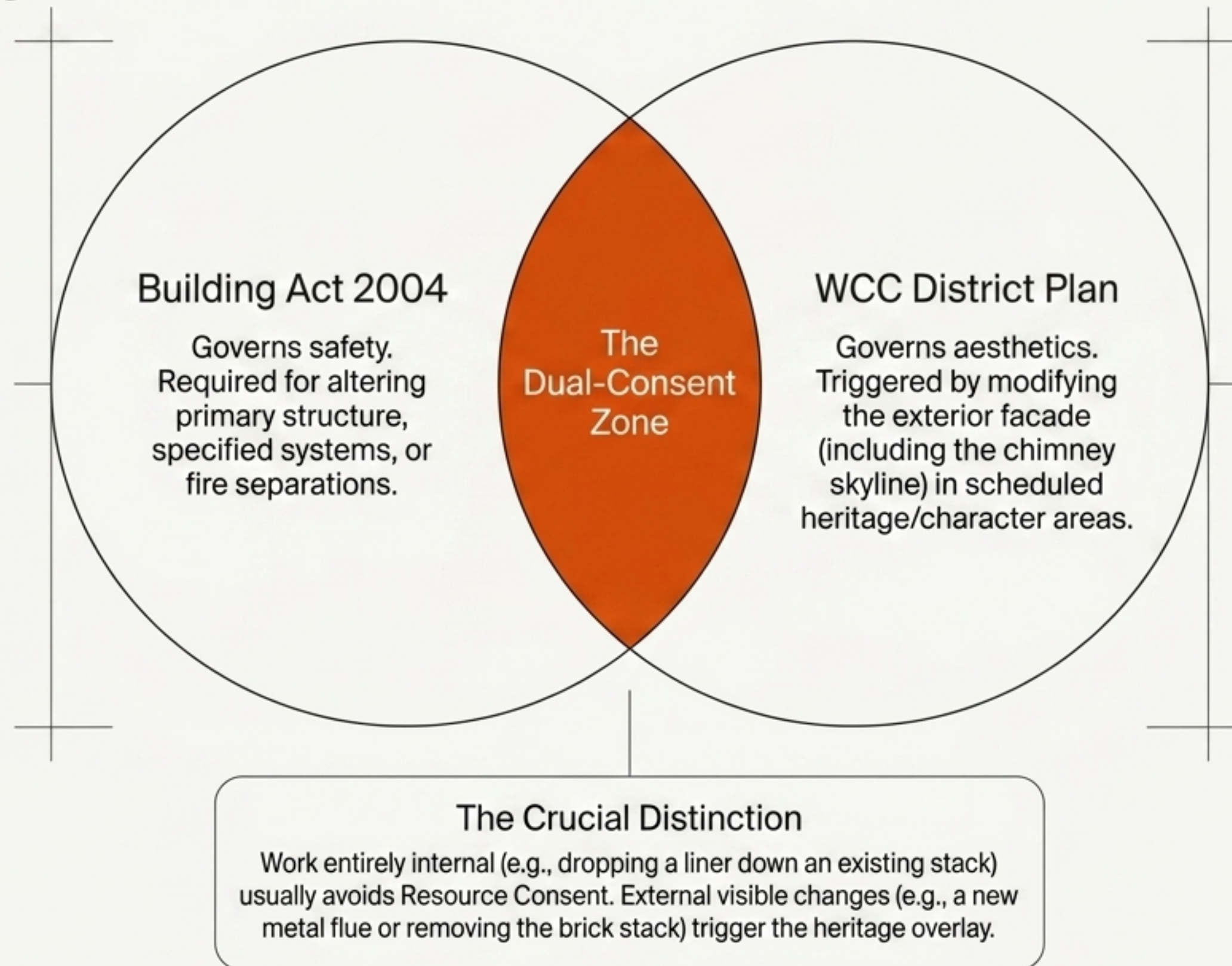


1. OVERSIZED FLUE: Smoke expands, loses velocity, and cools.

2. CREOSOTE DEPOSIT: Cold smoke condensates into highly flammable creosote tar on brick walls.

3. IGNITION RISK: A hot fire ignites the creosote, causing an explosive chimney fire (NZ Building Code C1-C6 violation).

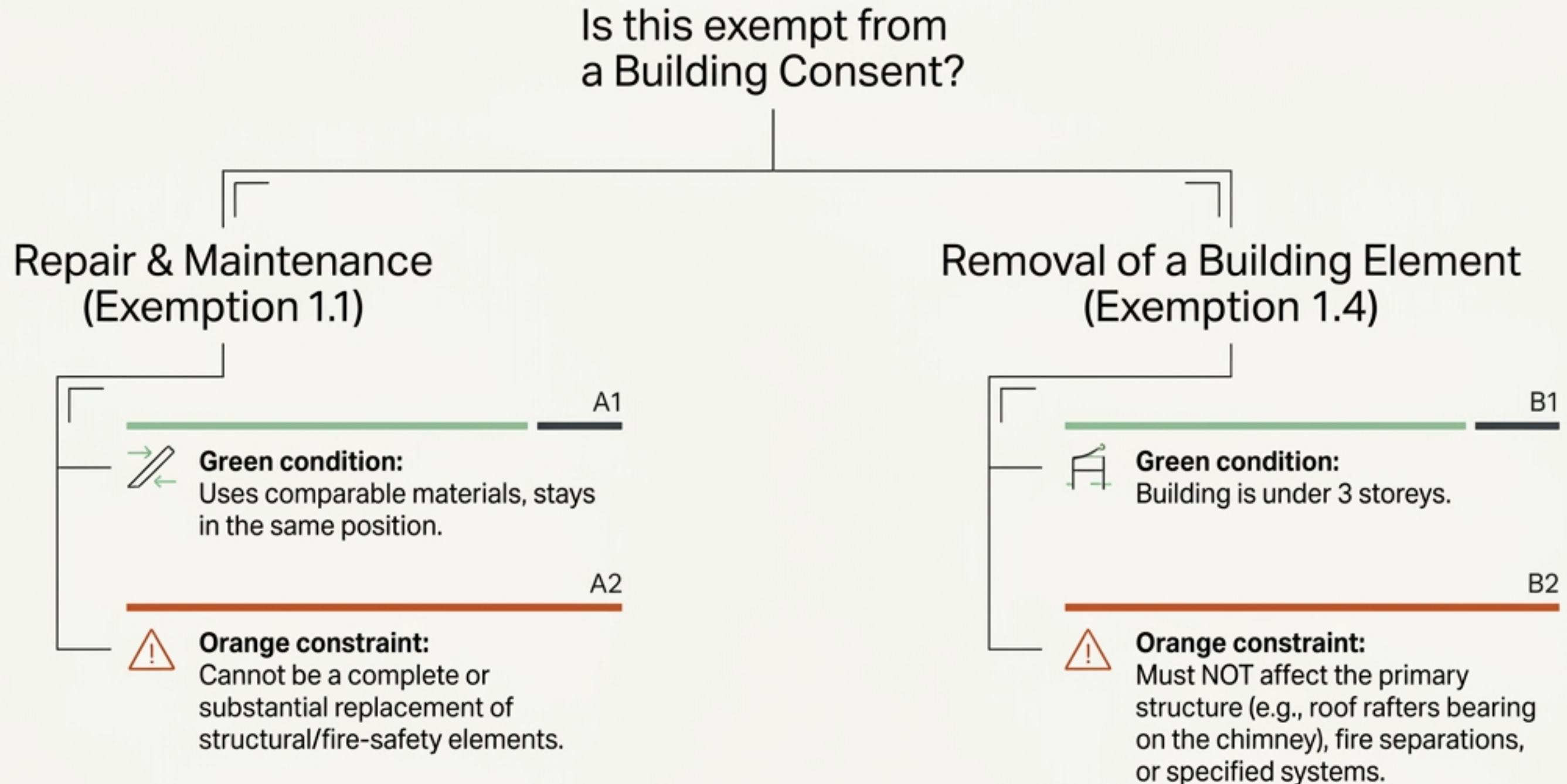
Navigating the dual-consent labyrinth



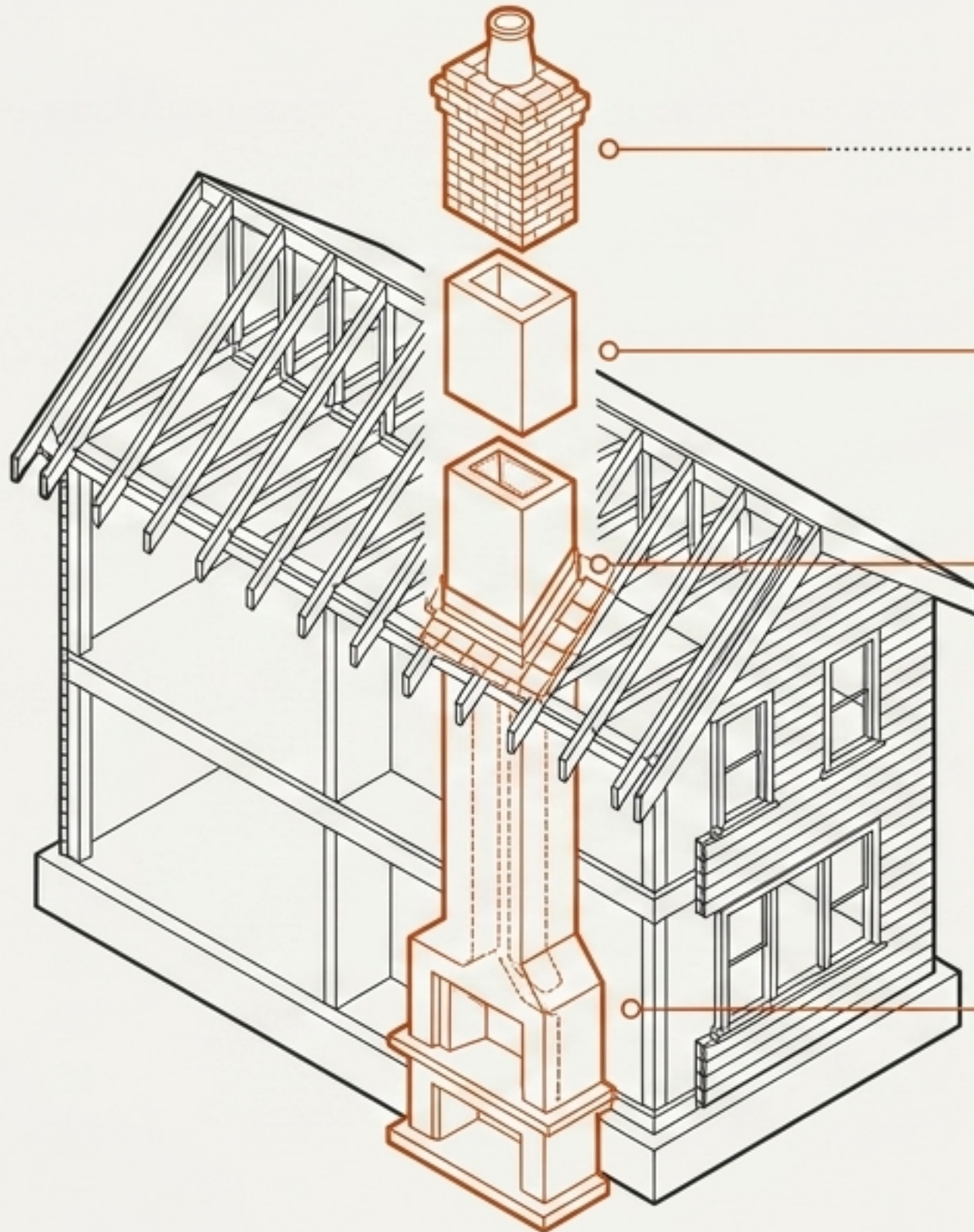
The Chimney Intervention Matrix

Action	Building Consent?		Resource Consent? (Heritage Zone)		Structural Engineer?	
General maintenance (re-pointing brick)	No	✓	No	✓	No	✓
Internal modern flue liner insertion	Yes	⚠	No	✓	No	✓
Removing chimney above roofline only	Yes (Usually)	⚠	Yes (Always)	⚠	Yes	⚠
Full removal of internal chimney breast	Yes (Affects primary structure)	⚠	No	✓	Yes	⚠
Replacing heritage brick with new metal flue	Yes	⚠	Yes (Always)	⚠	Yes	⚠

The boundaries of exempt building work



The scope and scale of full removal



Step 1

Hazard ID & Scaffold: Safe access, protecting the existing roof. (Ladders are strictly illegal for this work).

Step 2

Deconstruction: Removing unreinforced masonry. Note: Gas flues require a licensed gasfitter.

Step 3

Roof Reinstatement (Partial Removal): Removing to below roofline.

Estimated Cost: ~\$5,000 - \$6,500.

Step 4

Full Reinstatement (To Ground): Recovering floor space. Requires patching roof, dual ceilings, floors, and exterior weatherboards.

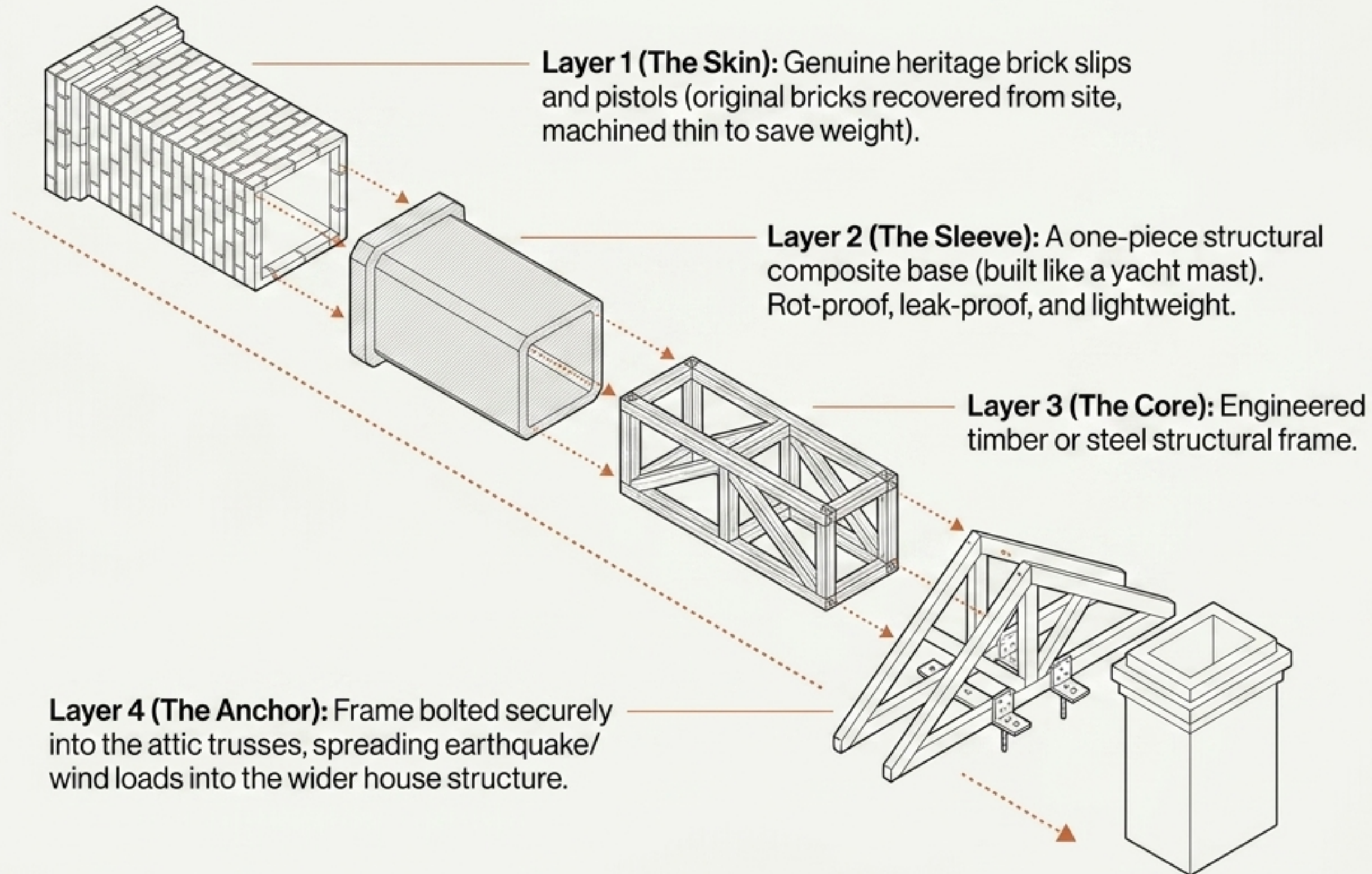
Estimated Cost: ~\$10,000 - \$25,000 (depending on storeys).

The Heritage Mandate

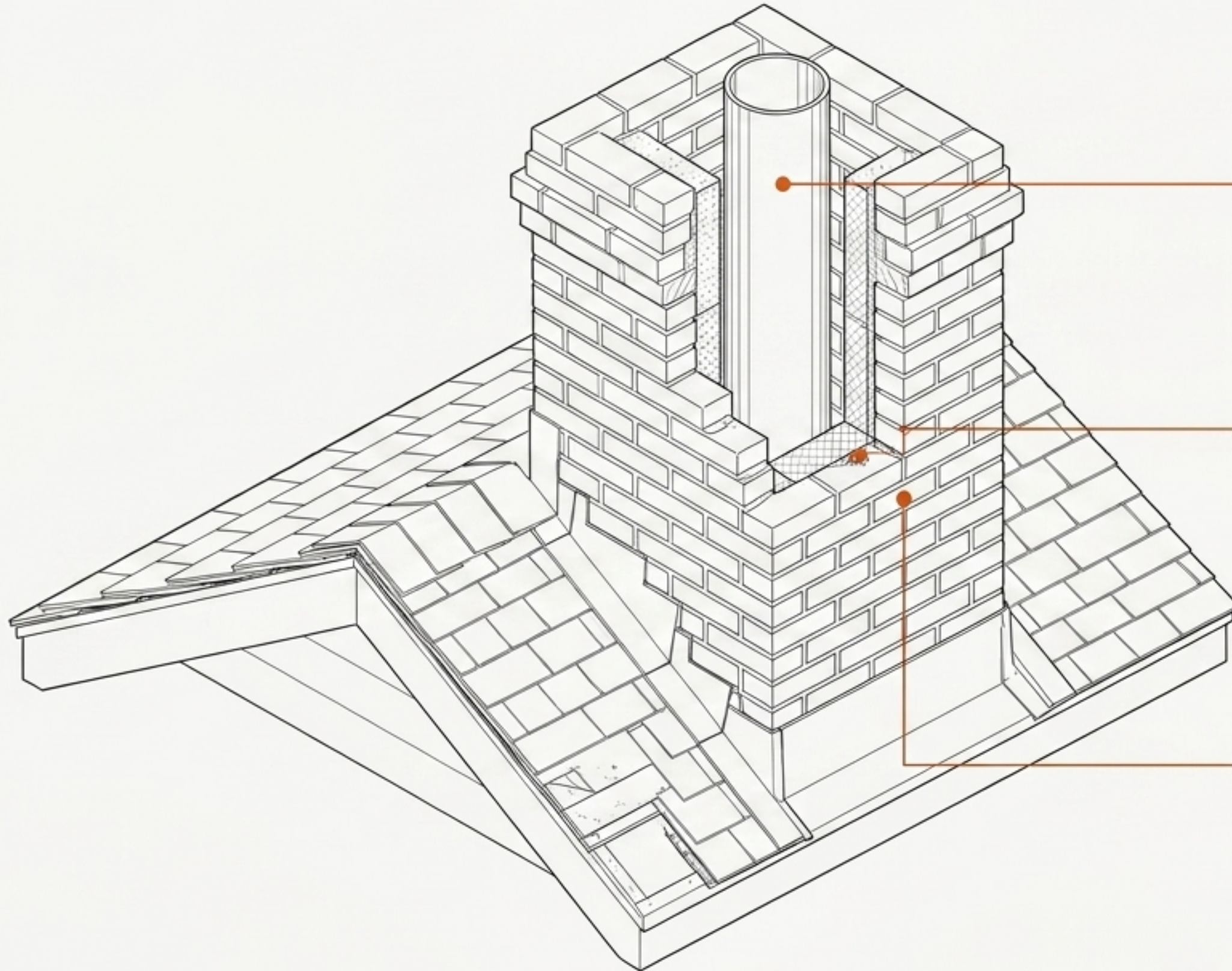


Auckland and Wellington Heritage Teams frequently allow the removal of dangerous masonry down to the roofline, provided an exact replica is reinstated above the roof. The solution is an engineered illusion.

Anatomy of the Core & Sleeve System

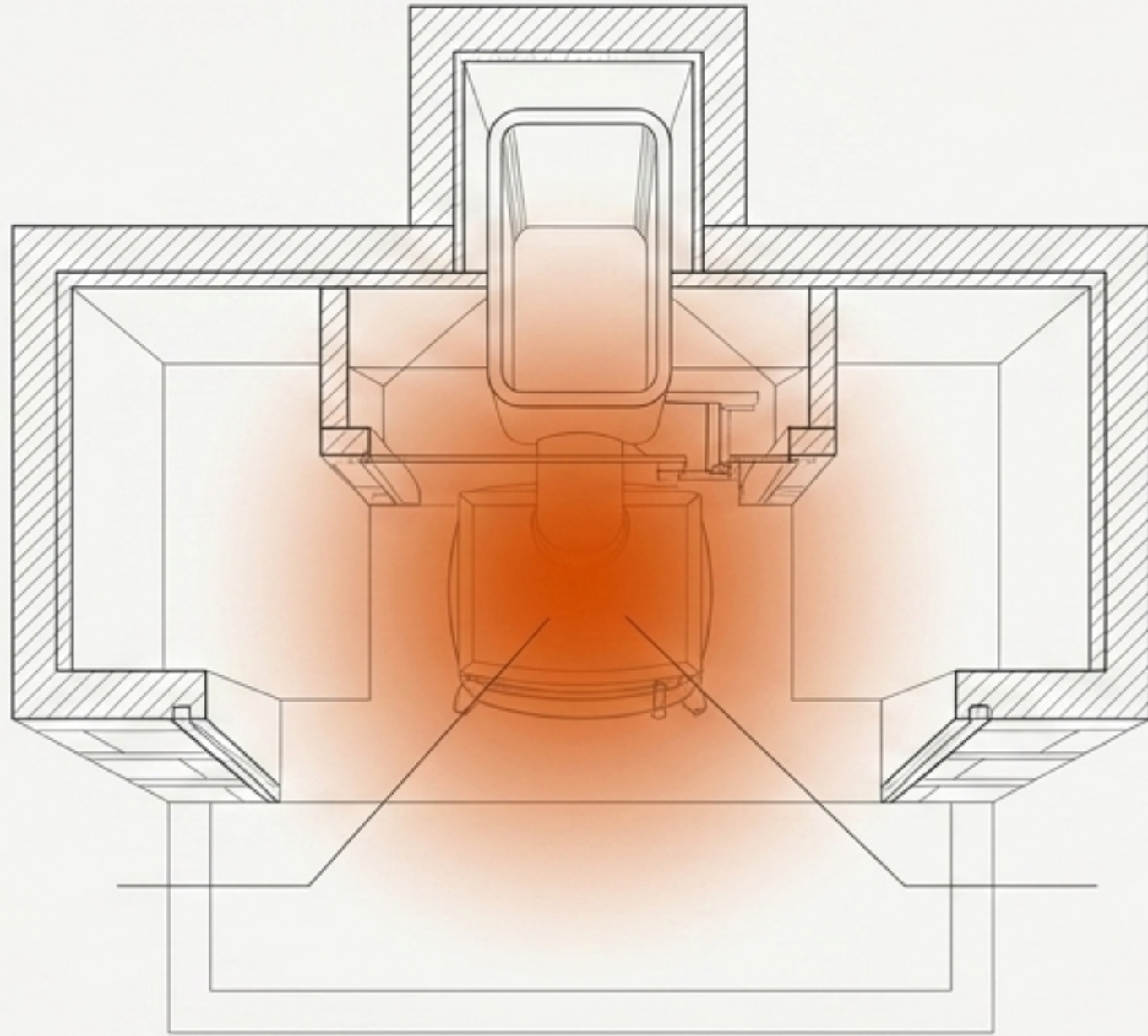


Weathering and authenticity



- 1 No Cavity Required:** Unlike standard faux-brick claddings that must float above the roof to drain water (a dead giveaway of a fake), composite sleeves bond directly.
- 2 Authentic Step-Flashing:** Because there is no cavity, traditional lead/metal step-flashing is applied directly to the base, perfectly mimicking 1920s masonry techniques.
- 3 Multi-Functional Interior:** The hollow core safely houses modern lightweight flues for woodburners, or even vents for en-suite bathrooms created in the recovered floor space below.

The Internal Assessment: Reclaiming the hearth



Pre-Installation Checklist

- ☐ **The Chimney Sweep's Audit:** An unused chimney must be swept and inspected before any commitments are made.
- ☐ **Checking the Liner:** Are the old clay liners cracked?
- ☐ **Measuring the Cavity:** Old coal openings are often vast; modern inserts require precise tolerances.
- ☐ **Draft & Cowlings:** Identifying wind blow-back issues that require specific chimney-pot cowls.

Modern Heating Diagnostics for Heritage Homes

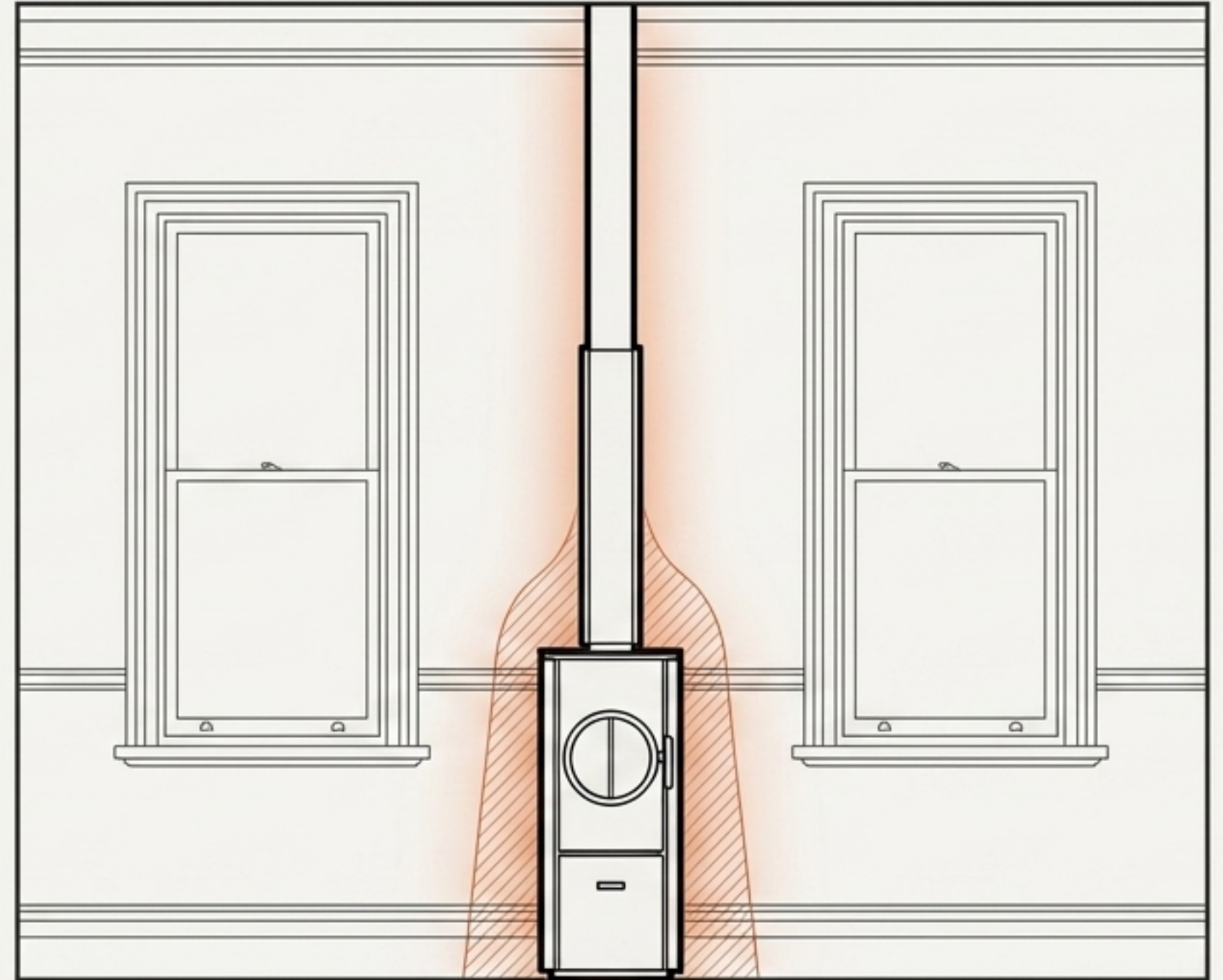
	Freestanding Woodburner	Clean-Air Insert (e.g., STÜV 30)	Built-In Gas Fire
Heritage Impact	Sits proudly in room (High)	Blends into existing masonry (Low)	Minimal structural change (#ea580c) (Lowest)
Clean Air Zone Compliant?	Yes (#ea580c) (if approved model)	Yes (#ea580c)	N/A (Exempt)
Structural Intervention	Requires floor protector/hearth	May require widening brick opening	None/Minimal (#ea580c)
Flue Requirement	Exposed internal metal flue	Concealed flexible stainless liner	Flexible co-axial gas liner

Proportion and Performance

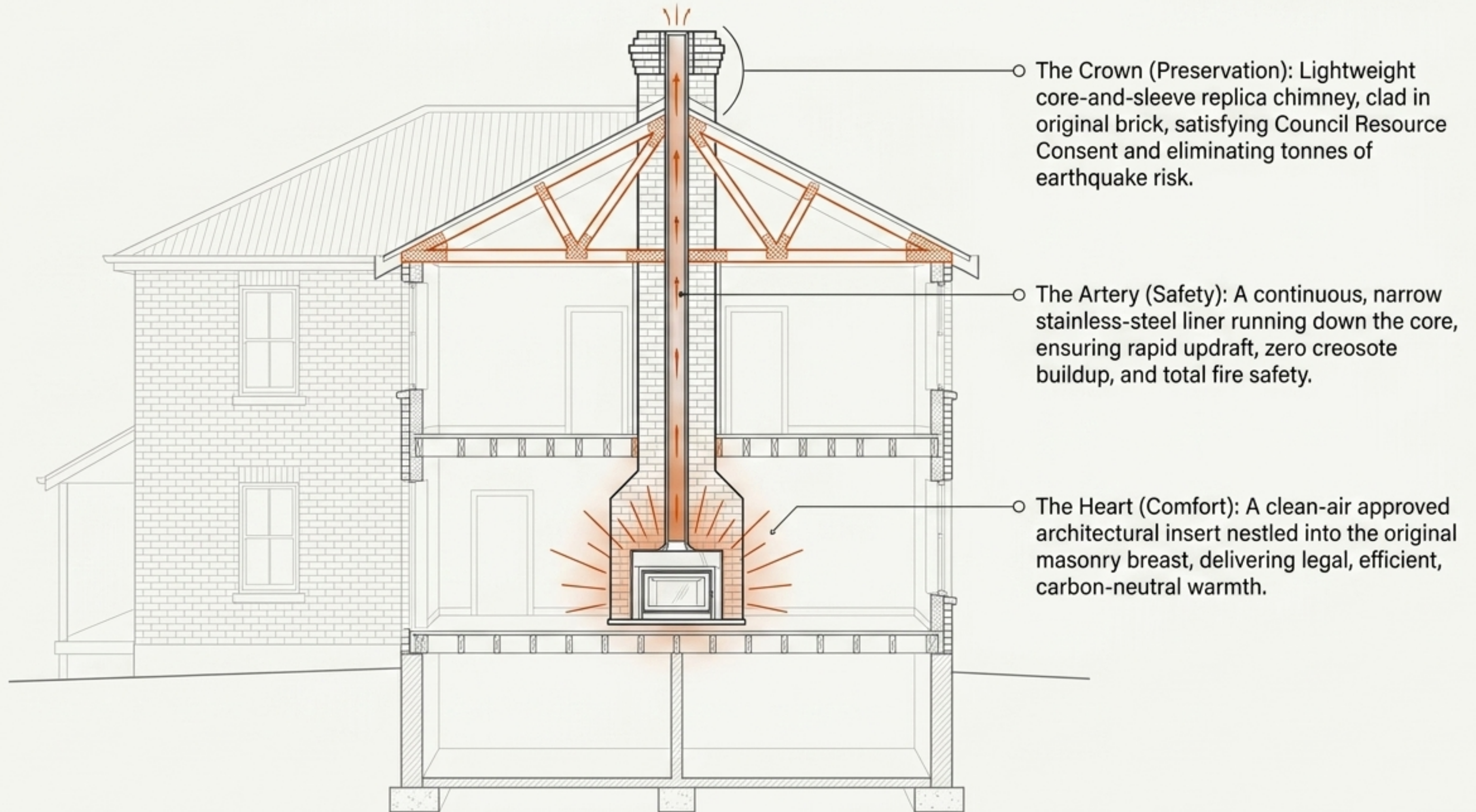
Finding a fire that respects the proportions of a 100-year-old home is difficult. Most rural-spec woodburners are too wide and visually dominating.

The Vertical Solution

- Models like the STÜV 30 Compact Clean Air offer a slim, vertical profile that suits high-stud Thorndon/Kelburn ceilings.
- Delivers 7-kW output (ideal for well-insulated 100m² spaces).
- Provides European minimalist design that complements restored period interiors rather than fighting them.



The Complete Modern Heritage Fireplace



Project Phasing & Next Steps

Phase 1: Assessment (Month 1)

- Book a professional chimney sweep/inspection to assess internal integrity.
- Check property designation on the Wellington/Auckland Council District Plan.

Phase 2: Planning & Consent (Months 2-3)

- Engage a structural engineer for removal/replica specifications.
- Submit combined Building and Resource Consents (allow 25+ working days).

Phase 3: Execution (Months 4+)

- Safe deconstruction by licensed trades.
- Replica installation via Hiab/Crane.
- NZHHA-certified installation of the new fire and liner.