Wildfire Home Hardening — Homeowner Edition

Optimal Home Remodeling & Design · CSLB #1091450 · Public edition of the Optimal Rapid Hardening Protocol (ORHP) v1.0 · November 2026

This is the assessment scorecard and remedy table we use on every hardening project, published for homeowners, fire safe councils and other contractors. It carries no pricing. Walk your home once, clockwise from the front door, and mark each item Pass, Fail or Not Applicable. Every Fail maps to one remedy in the second table. Use it freely; if you'd like us to do the walk with you, the assessment is free.

1. The 25-Point Structure Vulnerability Scorecard

#	Category	Item assessed	Pass condition	Fail condition
1	Zone 0 perimeter (0–5 ft)	Ground surface	Non-combustible: gravel, pavers, concrete, bare soil	Bark mulch, wood chips, leaf litter, rubber mulch
2	Zone 0 perimeter	Vegetation	None, or limited non-woody plants meeting height, spacing and container limits	Shrubs, hedges, woody plants, vines on walls
3	Zone 0 perimeter	Stored combustibles	None (no firewood, lumber, propane, furniture, bins)	Any stored combustible within 5 ft
4	Zone 0 perimeter	Outbuildings under 120 sq ft	Absent or entirely non-combustible	Combustible shed within 5 ft
5	Fencing and gates	Fence attachment to structure	No combustible fence attached, or a 5-ft non-combustible span at the connection	Wood fence or gate attached directly to wall
6	Fencing and gates	Gate under eave or adjacent to window	Metal gate	Wood gate
7	Roof	Roof covering	Class A assembly (asphalt composition, tile, metal)	Wood shake or shingle; untested covering
8	Roof	Roof-to-wall and valley flashing	Metal flashing, intact; bird stops at tile ends	Open valleys, missing bird stops, gaps at tile eaves
9	Roof	Gutters	Clear; non-combustible gutter guards	Debris-filled; plastic guards
10	Roof	Skylights	Tempered or multi-layer glazing, closed	Single-layer plastic domes
11	Eaves and vents	Attic, gable and foundation vents	Listed ember- and flame-resistant vents (ASTM E2886 tested; OSFM WUI listing)	Standard 1/4-in. or 1/8-in. mesh screens
12	Eaves and vents	Eave construction	Enclosed soffit of non-combustible or ignition-resistant material	Open rafter tails; combustible soffit boards

#	Category	Item assessed	Pass condition	Fail condition
13	Eaves and vents	Under-eave zone (within 5 ft below eave)	Clear of combustible vegetation and storage	Vegetation or storage under eave
14	Exterior walls	Siding material	Stucco, fiber-cement, masonry, or other non-combustible or ignition-resistant listed material	Wood, vinyl, untreated composite
15	Exterior walls	Ground-to-siding clearance	Minimum 6 in. non-combustible reveal to weep screed	Siding at or below grade; mulch against siding
16	Exterior walls	Penetrations and gaps	Sealed with fire-rated caulk or metal flashing	Open gaps at utilities, trim, corners
17	Fenestration	Window glazing	Multi-pane with at least one tempered pane, or tempered single pane	Single-pane annealed; dual-pane annealed in direct exposure
18	Fenestration	Window frames and screens	Metal or fiberglass frames; metal screens	Vinyl frames without reinforcement; fiberglass or plastic screens
19	Fenestration	Exterior doors	Solid-core or metal; weather-stripped; no gaps	Hollow-core; gaps at threshold or jamb
20	Fenestration	Garage door	Weather-stripped at bottom, sides and top; no gaps over 1/8 in.	Visible daylight at perimeter
21	Decks and stairs	Decking material	Non-combustible, ignition-resistant or fire-retardant-treated listed product	Untreated wood; combustible plastic composite without listing
22	Decks and stairs	Underdeck zone	Enclosed with non-combustible skirting or clear of combustibles	Storage or vegetation beneath deck
23	Decks and stairs	Deck-to-wall interface	Metal flashing; non-combustible boards within 2 ft of wall	Wood deck boards abutting combustible siding
24	Chimney and exterior utilities	Chimney spark arrestor	Listed arrestor, 1/2-in. or smaller mesh, intact	Missing or damaged
25	Chimney and exterior utilities	Propane tanks, HVAC units	10 ft clearance from structure or non-combustible pad with clear zone	Combustibles stored around unit or tank

Reading the result. Items 1–6 (the five-foot zone and attached fencing) and item 11 (vents) are the ones that matter most for ember ignition; any Fail there should be remedied first. Items 7 (roof covering) is outside the scope of a hardening retrofit and is flagged separately.

2. What Each Fail Means — the Remedy Table

Each scorecard item maps to exactly one remedy with a fixed material standard. The governing standard is given for reference; a licensed contractor will apply the local equivalent outside California.

Scorecard item	Remedy	Material standard	Governing standard or listing
1–3	Zone 0 conversion: remove combustible ground cover, plants and stored items; excavate 3–4 in.; install geotextile and 3/4-in. crushed rock, pavers or concrete; maintain 6-in. reveal to weep screed	Non-combustible aggregate or hardscape; commercial-grade geotextile	Zone 0 regulations (14 CCR, Gov. Code § 51182)
4	Remove or replace outbuilding within 5 ft	Metal shed or relocate	Zone 0 regulations
5–6	Replace the 5-ft fence span and any gate at the structure with non-combustible material; metal post and panel	Steel or aluminum fence section and gate	Zone 0 regulations; CWUIC § 504
7	Refer for roof replacement (outside ORHP scope); record as open item on attestation	Class A assembly	ASTM E108 / UL 790
8	Install metal valley flashing, bird stops and eave closures	Galvanized or painted steel; mortar or listed bird stops	CWUIC § 504 (formerly CBC 7A § 705A)
9	Clean gutters; install metal gutter guards	Steel or aluminum mesh guards	Safer from Wildfires measure
10	Replace plastic skylight with tempered or multi-layer unit	Tempered glass or listed WUI skylight	CWUIC § 504 (formerly CBC 7A § 708A)
11	Replace all attic, gable, soffit and foundation vents with listed ember- and flame-resistant vents	OSFM WUI-listed vents; ASTM E2886-tested	CWUIC § 504 (formerly CBC 7A § 706A); ASTM E2886
12	Enclose open eaves with soffit panels	Fiber-cement or 5/8-in. Type X gypsum with ignition-resistant finish	CWUIC § 504.3 (formerly CBC 7A § 707A)
13	Clear under-eave zone; included in Zone 0 conversion	—	Zone 0 regulations
14	Replace combustible siding on exposed elevations with ignition-resistant cladding over gypsum underlayment and water-resistive barrier	Fiber-cement lap or panel; 5/8-in. Type X gypsum; WRB	CWUIC § 504.5 (formerly CBC 7A § 707A); ASTM E136 / E84
15	Cut siding to restore 6-in. clearance; install metal flashing at base	Galvanized flashing	CWUIC § 504.5
16	Seal penetrations and gaps	Fire-rated sealant; metal flashing	CWUIC § 504
17–18	Replace glazing units on exposed elevations with multi-pane units with a tempered exterior pane; metal screens	Tempered insulated glass; aluminum or fiberglass frame	CWUIC § 504 (formerly CBC 7A § 708A); ASTM E2010 / NFRC

Scorecard item	Remedy	Material standard	Governing standard or listing
19–20	Replace or weather-strip exterior and garage doors; install bottom and side seals	Solid-core or metal doors; listed garage-door seal kit	CWUIC § 504 (formerly CBC 7A § 708A); IBHS Wildfire Prepared Home
21–23	Replace deck boards within 2 ft of wall with non-combustible boards; install metal flashing at wall; enclose underdeck with non-combustible skirting	Aluminum or listed ignition-resistant decking; metal skirting	CWUIC § 504.7 (formerly CBC 7A § 709A); OSFM WUI listing
24	Replace or install spark arrestor	Listed arrestor, max 1/2-in. mesh	CWUIC; CFC
25	Relocate combustibles; install non-combustible pad and clear zone	Concrete or gravel pad	Safer from Wildfires measure

3. Three Scope Tiers

Tier 1 — Perimeter, vents and sealing (items 1–6, 9, 11, 13, 16, 24–25). **Tier 2** — Tier 1 plus eaves, doors, deck interface and selected glazing. **Tier 3** — Tier 2 plus siding replacement on exposed elevations. The assessment determines the tier; nothing is added that the scorecard did not flag.

4. The Sequence We Follow

Work proceeds from the top of the structure down and from the structure outward, so that debris from roof and eave work does not contaminate a finished five-foot zone, and glazing is installed after siding is closed: roof edge → vents → eaves → walls → windows and doors → decks → fencing → five-foot zone → final walk against the scorecard. Three hold points with photographic sign-off sit between trades.

5. What You Should Receive When It's Done

From any contractor, not only us: a signed attestation naming each completed item; the scorecard before and after; a one-page cross-reference to the insurer-recognized measures under California's Safer from Wildfires program; the photo record keyed to item numbers; product listing numbers for vents, cladding, decking and glazing; a plain statement of any open items; and a maintenance sheet.

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