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# TECHNICAL STANDARD





**VERSION DECEMBER 2025** 



# **December 2025 Wildfire Prepared Home Technical Standard**

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# 2025 Wildfire Prepared Home™ Technical Standard

#### 1 PROGRAM OVERVIEW

# 1.1 Designations

The Wildfire Prepared Home™ program provides property owners with science-based actions to help protect their properties from wildfire. Developed by the Insurance Institute for Business & Home Safety (IBHS) and based on research from IBHS's Suburban Wildfire Adaptation Roadmaps, this program follows a systems-based, two-tiered approach to reducing parcel-level wildfire risk.

A property earns a "designation" by meeting all wildfire mitigation requirements for its selected level in the Wildfire Prepared Home program. Applicants are encouraged to use the <u>Step-by-Step Guide to a Wildfire Prepared Home</u> to complete the wildfire mitigation work before applying. To apply, pay a nonrefundable application fee, submit eligibility photos for IBHS review, and verified documentation will be collected by an authorized third-party evaluator. Once all requirements are confirmed, IBHS issues a designation certificate for the property.

#### 1.1.1 Designation Levels

Two designations are available. To earn a designation, a property shall meet all the requirements for the chosen designation level, as evaluated by an authorized third-party, and verified by IBHS. The Plus level builds upon the Base level requirements. See Figure 1.



Figure 1. Abbreviated List of Requirements

- **Wildfire Prepared Home Base** Applicants for this level must meet criteria such as creating the 0-5 Foot Noncombustible Zone, upgrading building features, and maintaining the defensible space surrounding the parcel to 30 feet. This is typically achieved when retrofitting existing properties.
- **Wildfire Prepared Home Plus -** This level includes additional protective measures beyond the Base level for key building features and structure spacing requirements. It is typically achieved with new construction or more extensive retrofitting of existing buildings.

# 1.1.2 Designation Level Goals

Wildfire Prepared Home is a designation program that helps reduce wildfire risk to individual properties through a system of mitigation actions at the parcel level, developed using the latest science and research from IBHS.

• **Wildfire Prepared Home Base** - Helps protect a property from embers by addressing vegetation and items on and around the building, breaking the pathway of connective fuels for fire to spread to the structure by **wind-driven embers**.

• **Wildfire Prepared Home Plus** - Adds extra protection by using specific building materials to help defend against radiant heat and direct flames, and provides the maximum level of protection.

#### 1.1.3 Designation Eligibility

- **Eligibility** Visit <u>wildfireprepared.org/about</u> for eligible property locations.
  - The designation has strict no-exception requirements. Protected trees may disqualify some properties, and property owners may need to coordinate with neighbors or Homeowners Associations (HOAs) to meet the 0-5 Foot Noncombustible Zone setback.
  - o Properties under active construction are not eligible.
- Qualifying Dwelling Types Eligible dwelling types must be located on permanent foundations, limited to 3 stories above grade, and be designed, built, and sited to meet all applicable state and/or local WUI building codes.
- Eligible Dwelling Types -
  - Single-Family Detached Homes A freestanding residential building designed for occupancy by one family. This category includes factory-built modular homes when they are constructed and sited in compliance with all applicable state and local building codes.
  - o **Modular Homes -** A home constructed in sections in a factory and assembled on-site, built to the same state and local building codes as site-built homes. Modular homes are not built to the US Department of Housing and Urban Development (HUD) standards.
  - HUD-Code Manufactured Homes Built After July 1994 A single-family residential home manufactured to HUD's Manufactured Home Construction and Safety Standards adopted after July 1994.
  - Multifamily Dwellings A building containing more than two dwelling units intended for permanent residency. This includes apartments, condominiums, townhouses, duplexes, and triplexes. To be eligible for designation, the entire building, encompassing all dwelling units, must meet all program requirements. Individual units are NOT eligible for designation unless the entire building is designated. Buildings exceeding 3 stories above grade may qualify on a case-by-case basis.
- Non-Eligible Dwelling Types -
  - Nonresidential Buildings
  - Nonresidential Manufactured Homes
  - Mobile Homes and Early HUD-Code Manufactured Homes
    - Mobile Homes A factory-built home constructed on a permanently attached chassis before June 15, 1976. These homes were built prior to the adoption of the federal HUD Manufactured Home Construction and Safety Standards. Homes built after this date are classified as "manufactured homes".
    - HUD-Code Manufactured Homes Built On or Before July 1994 A single-family home built in a
      factory on or after June 15, 1976, in compliance with HUD's Manufactured Home Construction and
      Safety Standards (the HUD Code). These homes are further categorized by build date. Early HUDcode manufactured homes built on or before July 1994, before HUD's major regulatory updates
      took effect, are not eligible.
  - o Mixed-Use Commercial/Residential Buildings
- **Applicant and Designation Recipient(s)** The applicant is responsible for completing the wildfire mitigation requirements, submitting eligibility photos, and paying a nonrefundable application fee. The designation recipient(s) receive the Wildfire Prepared designation from IBHS. The applicant and designation recipient(s) will differ by property type, as follows:
  - o Single Family Detached (including HUD manufactured and modular homes) The property owner is the applicant and the sole designation recipient.
  - o Rental Apartments (multifamily dwelling) The building owner or managing entity is the applicant and the owner is the sole designation recipient.
  - o Owner Occupied Units within the Building <u>with</u> a managing entity (condominiums and multifamily dwellings) The managing entity (e.g., condo board, HOA, or similar body) is the applicant. The designation shall be issued to the managing entity and all property owners who own units within the designated property shall request a copy through the managing entity.

- Owner Occupied Units within the Building <u>without</u> a managing entity (duplexes and triplexes) Each individual owner is an applicant and a designation recipient.
- Wildfire Mitigation Requirements To qualify, all requirements for the desired designation level shall be met for the entire property, including all units or all structures that comprise the property, to reduce wildfire risk, using the <a href="Step-by-Step Guide to a Wildfire Prepared Home">Step-by-Step Guide to a Wildfire Prepared Home</a>, based on the technical standard.
- Eligibility Photo Requirements The applicant must submit clear, multi-angle photos that adequately document all required wildfire mitigation measures to qualify for an evaluation. Photos must show all sides of the building, key building features (e.g., each deck, porch, pergola, balcony, shed, hot tub, propane tank), and the 0-5 Foot Noncombustible Zone (including fences). If something isn't clearly visible, additional photos may be requested.
  - o **Photo Tips:** Take as many photos as necessary to adequately show all areas of the building, including the front, back, and both sides (right and left when facing the front).
    - Corner and sides: Stand at each corner of the building and take at least two photos per side, showing the full length and the 0-5 Foot Noncombustible Zone.
    - Wide angles: From 30 feet away, take two wide shots of the front and two of the back, capturing the
      entire width of the building, corner to corner. Larger buildings may require multiple photos to
      capture the entire width of the building.
    - Take additional photos of key features like pergolas, decks, porches, balconies, sheds, hot tubs, and propane tanks.
  - o **Accepted File Formats:** jpg, jpeg, pdf, png, gif, svg, webp, jfif, heic, heif

# 1.1.4 Designation Process and Timelines: Initial, Annual Reviews, and Designation Renewal and Expiration

#### 1.1.4.1 Initial Designation

Properties earn a **Wildfire Prepared Home designation** by meeting all wildfire mitigation requirements for their selected level in the program. The designation is **valid for three years** and remains in **Active status** by completing an **Annual Review** each of the first **two years** following the initial designation, leading up to the **3-year designation expiration**.

#### **How to Apply**

- Complete the required wildfire mitigation, using the <u>Step-by-Step Guide to a Wildfire Prepared Home</u> based on the Technical Standard.
- Visit the website at <a href="https://wildfireprepared.org">https://wildfireprepared.org</a> and click "Apply Now."
- Pay the nonrefundable application fee.
- Submit eligibility photos for IBHS review. See Eligibility Photo Requirements for tips above.

Once eligibility photos are approved, a qualified third-party evaluator will conduct an in-person evaluation to collect documentation that will be verified. Once all requirements are confirmed, IBHS will issue a **Wildfire Prepared Home designation certificate**.

#### 1.1.4.2 Annual Reviews

To remain in **Active designation status** and ensure continued maintenance compliance, property owners, or managing entities must complete an **Annual Review** each of the first **two years** following their initial designation, leading up to the **3-year designation expiration**. This process verifies that your property remains mitigated to reduce wildfire risk and continues to meet the Wildfire Prepared Home Technical Standard in place at the time of designation. For multifamily buildings, the entire building, including all individual units, **MUST** remain compliant to maintain the designation. The applicant of record (e.g., property owner, HOA, or managing entity) is responsible for completing the Annual Review.

#### **How to Apply**

- Complete required maintenance.
- Visit the website at https://wildfireprepared.org and click "Start Annual Review."
- Pay the nonrefundable application fee.
- Submit **clear, multi-angle photos** that document all required maintenance to reduce wildfire risk. Photos must show **all sides** of the building, key building features (e.g., **decks, porches**), and the **0-5 Foot**

**Noncombustible Zone**. Be sure to include any **recent** changes such as new fences, structures, decks, sheds, hot tubs, or propane tanks. If something isn't clearly visible, additional photos may be requested.

#### **Ongoing Maintenance Requirements for Annual Reviews**

Regular maintenance is required to ensure the building and defensible space continue to meet the designation standard to meaningfully reduce wildfire risk. Growing, fallen, or dead vegetation, as well as new structures, can increase ignition risk. Think of your Annual Review like a **Red Flag Warning** - take proactive maintenance measures to help protect your property. To stay compliant, complete <u>all of the following</u> annual maintenance steps:

- Keep gutters, downspouts, and the roof clear of debris.
- Ensure the **0-5 Foot Noncombustible Zone** is properly maintained.
- Ensure the **5-30 Foot Defensible Space** is properly maintained.
- Regularly maintain all decks and porches.
- Ensure any **new additions or changes** (e.g., fences, structures, decks, hot tubs, propane tanks) remain compliant.
- Note: For specific maintenance requirements, see the appropriate sections in this technical standard.

#### **On Time Annual Reviews**

- **When to Apply:** To maintain Active status, designated properties must apply for the Annual Review during the 60-day period leading up to the Anniversary Date, as indicated on the most recent designation certificate. Submissions after the Anniversary Date will incur a late fee.
- **Application & Fee:** Applicants must submit an Annual Review application, pay the nonrefundable Annual Review fee in effect at the time of submission, and provide photo documentation demonstrating maintenance compliance.

#### Paid Grace Period:

- Active: If the Annual Review has been paid for by the Anniversary Date, the property will remain in
  Active status for 60 days following the Anniversary Date (Active 60-day grace period) to allow time to
  complete the Annual Review process.
- Inactive: If the Annual Review has been paid by the Anniversary Date but is not completed and approved by IBHS within the Active 60-day grace period, the application will become Inactive applications will be automatically closed 60 days before either the second Annual Review Anniversary or Expiration Date listed on the most recent designation certificate, whichever comes first.

#### Late Annual Reviews

- When Is It Late? An Annual Review is considered late if submitted after the Anniversary Date listed on the most recent Wildfire Prepared Home designation certificate.
- **Application & Late Fee:** Applicants must submit an Annual Review application, pay the nonrefundable Annual Review fee, as well as an additional late fee in effect at the time of submission. They must also provide photo documentation demonstrating maintenance compliance.

#### • Grace Period:

- o If the Annual Review is paid for within the 60-day "Active" Grace Period following the Anniversary Date but is not completed and approved by IBHS within this timeframe, the application will automatically become Inactive.
- o If the Annual Review is paid for after the 60-day "Active" Grace Period following the Anniversary Date, the property will remain Inactive until the application is approved by IBHS. Inactive applications will be automatically closed 60 days before either the second Annual Review or the Expiration Date listed on the most recent designation certificate, whichever comes first.

#### 1.1.4.3 Designation Renewal and Expiration

At the end of the 3-year designation period, a property's Wildfire Prepared Home designation will expire. To maintain an Active designation status, the property owner must complete the full designation process to verify continued compliance with this technical standard.

#### **Designation Renewal**

• When to Apply: To maintain an Active designation, property owners must submit their application and complete the full process before the Expiration Date listed on the most recent designation certificate. Allow

enough time to complete all required steps. If approved, the new certificate will align with the initial designation date and extend the designation for another 3 years.

• **How to Apply:** See Initial Designation requirements.

#### **Expired Designation**

- **Expired Status:** A Wildfire Prepared Home designation is considered Expired if the full re-designation process is not completed by the Expiration Date listed on the most recent designation certificate.
- **How to Apply:** Once expired, applicants must complete the full designation process as a new application, verifying compliance with this technical standard. The designation will remain Expired until IBHS approves the new application. See Initial Designation requirements.

#### 1.1.4.4 Legacy Exemption

IBHS reserves the right to update the WFPH Technical Standard at any time. New versions of the WFPH Technical Standard will be numbered and list an effective date. A new applicant must meet all requirements in the latest version of the WFPH Technical Standard as of that version's effective date. A renewal applicant must meet all requirements in the newest version of the technical standard as of that version's effective date, unless the renewal applicant receives a Legacy Exemption from IBHS. A Legacy Exemption allows IBHS to apply some or all of the requirements from the version of the WFPH Technical Standard that was in place when the renewal applicant first obtained a designation. IBHS reserves the right to assess and apply Legacy Exemptions on a case-by-case basis.

#### 1.1.4.5 Technical Bulletins

A Technical Bulletin is an official document issued by IBHS to:

- Address common technical and/or compliance issues.
- Provide compliance guidance for situations not addressed in the technical standard.
- Provide a "deeper dive" into existing program requirements.
- Introduce new technical standard requirements or modify existing requirements between full technical standard updates.

Technical Bulletins issued between technical standard updates are typically incorporated into the technical standard during the next update.

# 1.2 Red Flag Warning and Extended Absence Preparedness

To help protect your building during Red Flag Warning days and during extended absences, take the following maintenance steps:

- **0-5 Foot Noncombustible Zone -** Clear all accumulated vegetative debris and combustible items from this critical area.
- Roof and Gutters Ensure no vegetative debris, such as leaves or needles, is left on your roof or in gutters.
- **Combustible Items** Relocate combustible items indoors or at least 30 feet away from the building. Examples include small door mats, chair cushions, potted plants, trash and recycling bins, kids' toys, pet beds, pool accessories, decorations, and BBQ grills with a propane tank.
- **Parked Items** Move vehicles, motorcycles, trailers, boats, campers, RVs, ATVs, and similar vehicles at least 30 feet away from the building.

### 2 BASE LEVEL DESIGNATION REQUIREMENTS

To achieve a **Wildfire Prepared Home Base** designation, the property shall meet all listed requirements for this level, including specific building features and maintaining 30 feet of defensible space or to the property line around the building. These requirements must be met and maintained to qualify for and receive a designation certificate.

# 2.1 Building Feature Requirements for the Base Level

#### 2.1.1 Roof Covering

- The **roof covering material** shall have a **Class A rating** when tested in accordance with ASTM E108 or UL 790. Class A rated roof covering types include, but are not limited to, fiberglass composition asphalt shingles, concrete and clay tiles, metal shingles or sheets, and slate.
- **Single-ply membranes** are permitted on flat/low slope roofs only when installed as part of a tested and listed Class A roof assembly in accordance with ASTM E108 or UL790. The membrane alone is not considered Class A only the tested assembly is. Owners must provide proof through one of the following **documentation paths:** 
  - Approved Construction Documents & Final Inspection Record: Approved plans specifying the exact membrane type, cover board, attachment method, ASTM/UL Class A assembly reference, AND final building inspection record confirming the roof passed inspection as specified.
  - o **Installation Records & Photo Documentation:** Roofing contractor invoice/work order listing the exact membrane type (brand + product name) and all underlayment, cover board, insulation, attachment details, AND detailed photo documentation and material verification. Acceptable evidence must include:
    - Comprehensive photo documentation of product labels for all roof assembly materials used and photos of each layer as installed.
    - Approved testing documentation identifying the Class A tested assembly and the materials used in the test.
    - Photographic correlation showing the installed assembly matches the tested assembly materials.
  - o If verification that the single-ply membrane is part of a Class A roof assembly cannot be provided, the roof system must be retrofitted or replaced in accordance with the above to meet this requirement. See Technical Bulletin WP 2025-1 Single-ply Roof Membranes for more detailed information.
- **Roof cover maintenance** shall also meet <u>all the following</u>:
  - o Kept clear of vegetative debris.
  - o Where provided, barrel tile or corrugated roof coverings shall include **noncombustible bird stops** at the eave ends to prevent the entry of embers and debris.
- Note: Given the potential service life uncertainties of both ignition-resistant treatments and applied
  ignition-resistant coatings, the use of wood shake, wood shingle, or any wood roof covering material
  regardless of test rating are not permitted.

# 2.1.2 Gutters and Downspouts

Where gutters and downspouts are provided, shall include all the following:

- Gutters and downspouts shall be made of noncombustible material (e.g., metal).
- Gutters and downspouts shall be maintained clear of vegetative debris.

#### 2.1.3 Vents

**Ventilation openings**, including for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations, and crawl spaces, or for any other opening intended to permit ventilation, shall meet one of the following requirement options:

- **Performance-based Option -** Corrosion-resistant vents installed, conforming with the following ASTM E2886 test requirements for **flame- and ember-resistance**:
  - No flaming ignition of the cotton material during the Ember Intrusion Test.
  - o No flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
  - o Temperature of the unexposed side of the vent does not exceed 662°F.

- Note: Joints around such vents shall be sealed with sealants in accordance with vent manufacturer installation instructions to avoid ember and flame intrusion through the joints.
- **Prescriptive Option** Vents shall be **covered with a noncombustible, corrosion-resistant mesh** with openings not to exceed 1/8-inch in diameter for ember-resistance.
- Turbine vents (e.g., whirlybird vents) are not allowed.
- Exceptions:
  - o Forced air vents (e.g., dryer and central vacuum) shall have a functional louver or flap in lieu of mesh.
  - o Plumbing vents are excluded from this requirement.
- **Note:** The portion of a foundation vents frame/trim located within 6 inches above the ground or deck shall be noncombustible.

#### 2.1.4 6-inch Vertical Noncombustible Wall Covering Clearance

All exterior walls shall have at least **6-inches of noncombustible material** (e.g., exposed concrete foundation, fibercement, brick or stone veneer, stucco, metal flashing) applied vertically on the **base of the wall** measured from the ground at grade and the nearest horizontal surface (e.g., decks and patios).

• **Note:** All combustible deck posts shall include the 6-inch Vertical Noncombustible Wall Covering Clearance requirement, see 2.1.5 and 2.1.6 below.

# 2.1.5 Attached Patios, Decks, and Overhead Structures (Containing Any Combusible Materials)

Any attached patio, deck, stair, or overhead structure that contains combustible materials is considered part of the building footprint, as shown in Figure 2 and shall meet <u>all the following requirements</u>:

#### 2.1.5.1 Noncombustible Zone Around the Deck and Overhead Structure -

Where provided, a combustible deck or overhead structure shall have its own **0-5 Foot Noncombustible Zone**, measured from the outermost posts (see 2.2.1 0-5 Foot Noncombustible Zone for requirements).

• Exception: Where provided, an attached patio, deck, stairs, and overhead structure (e.g., pergola) constructed entirely of noncombustible materials such as concrete, fiber-cement, stucco, or metal, shall comply with the 0-5 Foot Noncombustible Zone requirements measured from the home's exterior walls, rather than from the outermost posts.

#### 2.1.5.2 Top of Walking Surfaces -

#### 0-5 Foot Noncombustible Zone

Shall remove all combustible items within 5 feet, except as permitted in the Exceptions listed below.

#### **Vegetation Maintenance**

- Walking surfaces shall be clear of vegetative debris, planter boxes, and climbing vines.
- Woody vegetation including plants, shrubs, bushes, and trees- is not permitted.
  - o Exception: Up to 10 noncombustible potted plants (e.g., terra cotta or clay) are permitted, provided:
    - Each plant (including the pot) shall not exceed 36 inches in height and width.
    - Potted plants can be relocated indoors or at least 30 feet from the building during Red Flag Warnings or extended absences.

#### **Furniture**

- Furniture shall have a **noncombustible frame** (e.g., cast iron, aluminum, or metal), including but not limited to, hanging chairs, rocking/lounge chairs, swinging benches, picnic benches, tables and chairs, and sectionals and ottomans.
  - o **Exception:** A limited number of small combustible items (e.g., chair cushions) are permitted if they can be relocated indoors or 30 feet away during Red Flag Warnings or extended absences.

#### **Combustible Items**

- Combustible items shall be **removed**, including but not limited to: sheds, saunas, storage containers, combustible privacy dividers, artificial turf, large area rugs, plastic covers, hanging lamps, window-mounted AC units, drapes, shade screens, plastic rain barrels, wine barrels, wood planters, and retractable shade screens without a noncombustible housing or replaced with noncombustible alternatives.
  - Exceptions:

- A limited number of items are permitted, including, but not limited to door mats, string lights, TVs, speakers, bird feeders, ceiling fans, pet doors and beds, trash/recycle bins, kids' toys, pool accessories, decorations, garden hoses, and BBQ grills with propane tanks and covers.
- All movable combustible items must be relocated indoors or 30 feet away during Red Flag Warnings or extended absences.

#### 2.1.5.3 Additional Structures -

#### Overhead Structures (e.g., covered porches, pergolas, carports, and gazebos)

- **Roof Covering -** Shall meet <u>one of the following requirements</u>:
  - A solid roof covering material with a Class A rating when tested in accordance with ASTM E108 or UL 790, or
  - o Constructed of combustible slats (e.g., pergola) that cover no more than 15% of the total surface area.
- **Setback** A detached combustible overhead structure (e.g., pergola and gazebo) on an attached deck shall be at least **10 feet from all exterior walls** of the building. (see 2.2.3 Detached Accessory Dwelling Units and Accessory Structures for additional requirements).
  - **Exception:** An overhead structure (e.g., pergola) constructed entirely of noncombustible materials is permitted with no setback requirement.
- **Posts** Combustible posts shall have at least **6-inches of noncombustible wall covering material** (e.g., fiber-cement, metal flashing, masonry veneer, or stucco) applied vertically on the base of the posts measured from the ground at grade and the nearest horizontal surface (e.g., decks and patios).
- Other Shall be free of any vegetation, curtains, drapes, and shade screens.
  - o **Exception:** Shade screens that retract into noncombustible housing are permitted.
- Carports- In addition to having at least 6-inches of vertical noncombustible wall covering material and the
   0-5 Foot Noncombustible Zone under and around the structure, shall meet <u>all of the following</u>
   requirements:
  - o Shall not store combustible items.
  - o An open carport with exposed combustible interior wall covering (e.g., wood), shall be enclosed.

#### Other Large Combustibles (e.g., hot tubs, saunas, outdoor kitchens, bars, built-in countertop areas)

- Hot Tubs and Saunas (where provided)
  - o Shall be located at least 10 feet from the building's exterior walls and from other large combustibles, and not under a combustible overhead structure (e.g., covered porch, pergola, or gazebo).
  - o When installed **on a combustible surface** (e.g., wood or composite deck), shall have noncombustible material under the hot tub and sauna, extending to 2 feet beyond all sides.
  - o When installed **on a noncombustible surface or patio (e.g., concrete patio)**, the 0-5 Foot Noncombustible Zone shall be maintained around the hot tub or sauna.
- Outdoor Kitchens, Bars, and Built-ins (where provided)
  - o All horizontal exterior surfaces shall be constructed entirely of **noncombustible materials**. If any cabinets or built-ins are combustible, they shall have at least 6-inches of noncombustible material applied vertically on exposed exterior walls, measured above any horizontal deck or patio surface.
  - o If attached to the building and the exterior wall covering is combustible, at least 6-inches of noncombustible material (e.g., backsplash) shall be applied vertically on the wall above any horizontal surface of the kitchen, bar, and built-in.

#### 2.1.5.4 Underneath an Elevated Deck -

- **Vegetation and Groundcover -** Shall **remove all vegetation and combustible groundcover** (e.g., grass, artificial turf, weeds, plants, shrubs, bushes, trees, exposed weed cloth, wood and rubber mulch) to bare mineral soil.
  - Note: Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.
- 6-inch Vertical Noncombustible Clearance Shall have at least 6-inches of noncombustible wall covering material (e.g., fiber-cement, metal flashing, masonry veneer, or stucco) applied vertically at the base of all posts, supporting walls, and stairs measured from the ground at grade.

- Lattice and Mesh Where provided, combustible lattice material (e.g., wood or plastic), shall be removed from at least the bottom 6-inches or replaced with noncombustible material (e.g., metal). Where noncombustible corrosion-resistant metal mesh is provided, the mesh shall be installed on the outside of the lattice.
- **No Storage -** Shall have **nothing stored underneath**.
  - o **Exception:** An open outdoor living area under the deck shall meet the same requirements (see "Top of walking surfaces" above).
- Additionally, decks with a walking surface of 4 feet or less above the ground, shall be enclosed with the following:
  - o When measured from the walking surface to the ground, the underdeck area with this height or less shall be enclosed with noncombustible, corrosion-resistant mesh. The mesh openings shall not exceed 1/8-inch in diameter and shall fully enclose the outer edge of the deck from the walking surface to the ground. This enclosure is required to reduce debris accumulation and limit ember intrusion beneath the deck.

# 2.1.6 Detached Decks and Overhead Structures (e.g., Covered Porches, Pergolas, Carports, and Gazebos)

Where provided, <u>detached</u> decks and overhead structures within 30 feet of the building shall meet the same requirements as attached decks (see 2.1.5 Attached Patios, Decks, and Overhead Structures).

# 2.2 Defensible Space Requirements for the Base Level

# 2.2.1 0-5 Foot Noncombustible Zone - Area within 5 Feet of the Building and Attachments

The first five feet surrounding the building and its attachments (e.g., decks, patios, overhead structures, stairs) is the **most critical area of defensible space**. This zone shall be established and maintained as noncombustible.

The 0-5 Foot Noncombustible Zone is measured horizontally from the **edge of the building's exterior walls** and, if present, the outermost posts of a combustible deck or overhead structure, extending outward to 5 feet (see Figure 2). This noncombustible area also extends vertically to the sky.

The **0-5 Foot Noncombustible Zone** shall meet <u>all the following requirements</u>:

#### Vegetation -

- Shall **remove all vegetation** (e.g., grass, weeds, flowers, succulents, cacti, plants, shrubs, bushes, and vegetative debris) **within 5 feet** to bare mineral soil.
- Shall **remove all trees**, limbs, branches, and vines that are within **and that overhang** the 0-5 Foot Noncombustible Zone.

#### Groundcover -

- Shall **remove all combustible groundcover materials** (e.g., wood and rubber mulch, artificial turf, and exposed weed cloth) within 5 feet to bare mineral soil.
  - o **Note:** Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.

#### Fencing and Retaining Walls -

• Shall **remove combustible fencing materials** (e.g., wood and vinyl), posts, gates, and retaining walls **within** 5 feet or replace with noncombustible material.

#### Parked Items -

• Shall not store vehicles, motorcycles, trailers, boats, campers, RVs, ATVs, and similar vehicles within 5 feet. Relocate them at least 30 feet away on Red Flag Warning days or during extended absences.



Figure 2. The 0-5 Foot Noncombustible

#### Combustible Items -

- Removal Requirement: Shall remove all combustible items within 5 feet including, but not limited to, drapes, hot tubs, outdoor kitchens, bars, built-ins, firewood, furniture, hanging lamps, window-mounted AC units, large area rugs, combustible privacy dividers, plastic rain barrels, wine barrels, wood planters, playsets, saunas, sheds, storage containers, shade screens, and retractable shade screens without a noncombustible housing.
- **Replacement Option:** Certain combustible items (e.g., furniture) may be replaced with noncombustible-framed alternatives.

#### • Exceptions:

- A limited number of items including, but not limited to, door mats, string lights, TVs, speakers, bird feeders, pet doors and beds, trash/recycle bins, kids' toys, pool pumps and accessories, garden hoses, BBQ grills with propane tank and cover, HVAC units (e.g., compressor fans), plastic downspout extensions, retractable shade screens with noncombustible housing, solar panel battery enclosures, and irrigation valves are permitted.
- o **All movable combustible items need to be relocated** indoors or at least 30 feet away during Red Flag Warning days or extended absences.

#### **Reference Sections for Other Items:**

- For large combustibles (e.g., hot tubs, outdoor kitchens, and built-ins), see section 2.1.5.3.
- For pergolas, see section 2.1.5.3.
- For large structures (e.g., sheds, ADU units), see 2.2.3 for Base and 3.2.2 for Plus.

# 2.2.2 5-30 Foot Defensible Space Zone - Area Surrounding the Building and Attachments

To slow fire spread and reduce flame intensity near the building, horizontal and vertical separation of vegetation, structures, and other connective fuels shall be created and maintained within 5 to 30 feet around the structure and its attachments or to the property line, whichever is closest. The 5-30 Foot Defensible Space Zone shall meet <u>all the following requirements</u>:

#### 2.2.2.1 Vegetation

#### Tree Spacing -

- Shall prune tree limbs and branches to a minimum height of 6 vertical feet above the ground or one-third the height of the tree if the tree is under 18 feet tall.
- Privacy rows of trees shall be located a minimum of 10 feet from the building's exterior walls.
- Shall keep all branches at least 10 feet away from chimney and stovepipe outlets.

#### Shrub Spacing -

- Shrubs, bushes, and plants taller than 2 feet shall not be placed under trees.
- Individual shrubs or clustered groups ("islands") may be used, provided each cluster has total foliage **less** than 10 feet in horizontal diameter and is treated as a single shrub.
- Shrubs, bushes, and plants, or shrub groupings shall have horizontal spacing from other vegetation of 2 times the height of the tallest plant up to a maximum spacing requirement of 10 feet.
  - o Example: A 3-foot-tall shrub requires 6 feet of clearance around it.
- Privacy hedges and rows of bushes shall be located a minimum of 10 feet from the building's exterior walls.

#### Maintenance -

- Shall cut down annual grasses to less than 4 inches in height.
- Continuous vegetative groundcover kept at less than 18 inches in height when isolated from other fuels may be maintained on slopes where necessary to stabilize the soil and prevent erosion.
- Shall routinely **remove dead and dying vegetation** (e.g., grass, weeds, groundcover, plants, shrubs, bushes, trees, logs, stumps, branches, leaves, and pine needles).
- Shall place **wood piles at least 30 feet away** from the building unless the wood is stored in an accessory structure (see 2.2.3 Accessory Dwelling Units and Accessory Structures for Base Level requirements or 3.2.2 for Plus Level requirements). Fire-retardant tarps are not permitted.

#### **2.2.2.2 Other items**

**Liquid Propane Gas Storage Tanks and Fuel Tanks (e.g., diesel and kerosene)** - Where provided, shall meet one of the following requirements:

- Shall be at least 30 feet from the building, or
- Shall be at least 10 feet from the building and have the following minimum clearance, and
  - O-10 feet Shall have 10 feet of noncombustible clearance to bare mineral soil under and around the tank, including removal of vegetation, groundcover, fencing, and all combustible items.
    Noncombustible hardscape materials (e.g., gravel, pavers, river rocks, decomposed granite, steppingstones, and concrete) are permitted.
    - **Exception:** Healthy, mature trees are permitted if limbed up to maintain at least 6 feet of clearance above the tank.
  - 10-20 feet Shall extend clearance an additional 10 feet around their exterior. The additional 10 feet of clearance includes cutting annual grasses down to less than four inches in height; removing plants, shrubs, bushes, and small trees; and removing dead plants, shrubs, bushes, trees, limbs, branches, logs, and stumps.
    - **Exception:** Healthy, mature trees are permitted if limbed up to maintain at least 6 feet of clearance above the tank.

#### **Combustible Water Storage Tanks -**

- Where provided, shall be at least **5 feet from the building's exterior walls** and other large combustibles and not under a combustible overhead structure (e.g., covered porch, pergola, or gazebo).
  - o *Exception*: Multiple water storage tanks within 5 feet of each other are permitted.
- Shall have the 0-5 Foot Noncombustible Zone (e.g., bare dirt, gravel, concrete) underneath and surrounding the tank.

# 2.2.3 Detached Accessory Dwelling Units and Accessory Structures (within the 5-30 Foot Defensible Space Zone)

All Structures [e.g., Overhead Structures (e.g., Pergolas, Carports, Gazebos) Sheds, Garages, Greenhouses, Playsets, etc.] with a footprint greater than or equal to 15 square feet and within 30 feet of the building and attachments, where provided, shall meet <u>all the following</u> requirements:

- Structures shall be at least 10 feet from the building and attachments.
- Structures shall meet the same wildfire resilience requirements for the building, such as roof covering, gutters and downspouts, vents, 6-inch vertical noncombustible wall covering clearance, decks, and the 0-5 Foot Noncombustible Zone surrounding them.
- Space **multiple structures** at least **10 feet apart** from each other. Each structure's 0-5 Foot Noncombustible Zone under and around the structure shall not overlap the 0-5 Foot Noncombustible Zone required for the building, decks, or other structures within 30 feet.
- Shall have no more than 3 total ADUs and accessory structures within 30 feet.
- Additionally, open detached carports and garages, where provided:
  - o Shall not store combustible items.
  - o An open carport with exposed combustible interior wall covering (e.g., wood), shall be enclosed.
- Note Ongoing Research: As of publication of this technical standard, IBHS continues active research into the spacing required between structures to reduce the likelihood of wind-driven building-to-building fire spread, including the impact of structural openings, building materials, and connective fuels. The provisions of this section of the standard may be updated as this research matures.

### 3 PLUS LEVEL DESIGNATION REQUIREMENTS

To achieve a **Wildfire Prepared Home Plus** designation, a property shall first meet all the requirements of the **Base** level, except where the **Plus** level designation requirements are more restrictive. Additionally, the building shall meet <u>all of the following</u> **Plus** level requirements:

# 3.1 Building Features Requirements for the Plus Level

#### 3.1.1 Gutters and Downspouts

Where provided, in addition to having noncombustible material for gutters and downspouts as required for the Base level, gutters shall also be **covered with a noncombustible material**.

#### 3.1.2 Eaves and Soffits

In addition to the vent opening requirement for eaves and soffits listed for the Base level requirements, eaves shall be enclosed (soffited) with noncombustible material (e.g., fiber-cement, stucco, or metal).

#### 3.1.3 Vents

In addition to having a functional louver or flap for forced air vents (e.g., dryer and central vacuum) as required for the Base level requirements, they shall also be **made of noncombustible material** (e.g., metal).

### 3.1.4 Exterior Wall Covering

In addition to having the bottom 6-inches of exterior walls made of noncombustible material as required for the Base level, all exterior wall covering shall be made of a noncombustible material (e.g., metal, fiber-cement, masonry veneer, stucco, brick, concrete).

- Where provided, all shutters (decorative and operable) shall have all exposed surfaces constructed of noncombustible material.
- **Note:** Combustible and ignition-resistant wall cover material (e.g., vinyl, wood shake, wood shingle, or any other wood siding material including ignition-resistant treatments and coatings) by construction or assembly are not permitted.

# 3.1.5 Exterior Glass (Windows, Skylights, and Glazed Openings within Doors)

All exterior windows, skylights, and glazed openings within doors shall comply with <u>one of the following</u> requirements:

- Multipaned glass with at least two tempered panes.
  - o **Exception:** Skylights may be constructed with one outer tempered pane and one inner laminated pane.
- Glass with a fire-protection rating of not less than 20 minutes, when tested in accordance with NFPA 257 or UL 9.
- Glass block (windows only).

**Operable skylights**, regardless of glass configuration, shall be protected with a noncombustible mesh screen where mesh openings shall not exceed 1/8-inch in diameter.

#### 3.1.6 Exterior Doors

All exterior doors shall comply with one of the following requirements:

- Noncombustible construction.
- Solid-core wood not less than 1¾ inches thick (44 mm).
- Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252, UL 10B, or UL 10C.
- Doors made of combustible material (e.g. non-solid core wood doors) are permissible provided a noncombustible exterior storm door is installed as the outermost door.

In addition to the above, all of the following are required:

- The exterior door frame shall be constructed with a noncombustible threshold.
- Where provided, windows within doors and glazed doors shall be constructed in accordance with this standard's exterior glass requirements (see 3.1.5 Exterior Glass).

#### 3.1.7 Underfloor and Projections (e.g., underneath cantilever, home on piers)

The underfloor and building projections other than decks shall be constructed with one of the following:

- Shall have noncombustible material coverings.
- Be enclosed to the ground with noncombustible material wall coverings.

Decks complying with the retrofit option 2 in section 3.1.8.1 and section 2.1.5.4 comply with this section.

#### 3.1.8 Decks, Stairs, and Additional Attached Structures

#### 3.1.8.1 Decks and Stairs

In addition to the Base level requirements, decks shall meet one of the following required options:

#### **Option 1: New Construction - (Fully Noncombustible Deck)**

• All deck components, including posts, joists, railings, stairs, and walking surfaces, shall be constructed entirely of noncombustible materials.

#### **Option 2: Retrofit -** (Noncombustible Upgrades to Existing Deck)

- **Deck Walking Surfaces** shall be constructed with a solid, noncombustible material (e.g., metal or lightweight concrete) with no gaps.
- **Deck Railings** within 5 feet of the building shall be constructed with noncombustible material, including where they attach to the building.
- **Deck posts** shall have a minimum of 6-inches of noncombustible material (e.g., metal flashing or fibercement board) applied vertically to the base.
- Stairs Attached to a Deck shall meet one the following requirements:
  - o Stairs Less than 4 Feet Wide and Open Underneath:
    - A minimum of 6-inches of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.
    - Stair treads shall be a solid (no gaps) and made of noncombustible material (e.g., metal or lightweight concrete).
    - **Exception:** If stairs are constructed with closed risers, they shall also be **solid (no gaps)** and made of noncombustible material.

#### Stairs Wider Than 4 Feet:

- The area underneath shall be enclosed with **noncombustible**, **corrosion-resistant mesh** with openings not to exceed <sup>1</sup>/<sub>8</sub>-inch in diameter.
- A minimum of **6-inches** of noncombustible material (e.g., metal flashing or fiber-cement) shall be applied vertically at the exterior base, measured from the ground at grade.
- Stairs shall have **closed risers.** Stair treads and risers shall be a solid, and made of noncombustible material (e.g., metal or light-weight concrete) with no gaps.

#### 3.1.8.2 Additional Attached Structures

#### **Overhead Structures**

Where provided, overhead structures shall be completely noncombustible and shall meet the same material requirements as the home.

#### **Outdoor Kitchens, Bars, and Built-Ins**

Where provided, these features shall be constructed entirely of noncombustible materials.

# 3.2 Defensible Space Requirements for the Plus Level

#### 3.2.1 Parallel Fences within 5 to 30 feet

Back-to-back (parallel) combustible fencing (meaning separate fences that are combustible and closer than 5 feet apart) are not permitted.

- Exception: If one or both back-to-back (parallel) fences are constructed with noncombustible materials (e.g., concrete or metal).
- **Note:** Meeting this requirement may necessitate coordination with neighbors or an HOA to eliminate at least one of the combustible parallel fences.

### 3.2.2 Detached Accessory Dwelling Units and Accessory Structures

- All Detached Accessory Dwelling Units (ADUs) and Accessory Structures [e.g., Overhead Structures (e.g., Pergolas, Carports, Garages, Gazebos) Sheds, Greenhouses, Playsets, Etc.] with a footprint greater than or equal to 15 square feet shall be located a minimum of 30 feet away from the building and attachments.
- **Note Ongoing Research:** As of publication of this technical standard, IBHS continues active research into the spacing required between structures to reduce the likelihood of wind-driven building-to-building fire spread, including the impact of structural openings, building materials, and connective fuels. The provisions of this section of the standard may be updated as this research matures.

### 4 APPENDIX A. TECHNICAL RESOURCES

Wildfire Prepared Home offers tools to assist property owners, applicants, and other stakeholders achieve designations. Find them at <u>wildfireprepared.org</u>.

# 4.1 Applicant: Step-by-Step Guide to a Wildfire Prepared Home

To meet the wildfire mitigation requirements for a designation, use the **Step-by-Step Guide to a Wildfire Prepared Home** to ensure all the necessary steps for your chosen level are complete before applying.

# 4.2 IBHS Portal, Contact Information, and Status Updates

After creating an account, log in at wildfireprepared.org/portal to ask questions and check your application status.

#### 4.3 Definitions

- **Combustible** Materials that can ignite and burn.
- **Noncombustible** Made from material of which no part will ignite and burn when subjected to fire. Any material passing ASTM E136 shall be considered noncombustible.
- **Red Flag Warning** A Red Flag Warning is determined by local offices of the National Weather Service (NWS) and is specific to those local areas. A Red Flag Warning means warm temperatures, very low humidities, and strong winds are expected to combine to produce an increased risk of fire danger.
- **Roof Covering** The material applied to the roof deck to provide weather resistance, achieve fire classification, or enhance appearance.
- **Wall Covering** An exterior wall material applied to provide a weather-resistant barrier, insulation, or aesthetic appeal.
- **Performance-Based Option -** Specifies a desired outcome by requiring compliance with a certain standard(s), without prescribing specific methods or materials.

**Prescriptive Option -** Specifies exact methods or materials to achieve compliance, rather than focusing on a desired outcome (compliance with a certain standard(s)).

# 4.4 List of Referenced Standards

#### 4.4.1 **ASTM**

- E84 Standard Test Methods for Surface Burning Characteristics of Building Materials
- **E108** Standard Test Methods for Fire Tests of Roof Coverings
- E136 Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C
- **E2768** Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30 min Tunnel Test)
- **E2886** Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement

#### 4.4.2 NFPA

- 252 Standard Methods of Fire Tests of Door Assemblies
- 257 Standard on Fire Test for Windows and Glass Block Assemblies

#### 4.4.3 UL

- 9 Standard for Fire Tests of Window Assemblies
- 10B Standard for Safety Fire Tests of Door Assemblies
- 10C Standard for Positive Pressure Fire Tests of Door Assemblies
- 723 Standard for Test for Surface Burning Characteristics of Building Materials
- 790 Standard Test Methods for Fire Tests of Roof Coverings

#### 4.4.4 ISO

17065 - Requirements for Bodies Certifying Products, Processes and Services