

Building Code Board of Appeals

Agenda

**February 11, 2026
City Hall, Council Chambers
749 Main Street
2:00 PM**

Members of the public are welcome to attend and give comments remotely; however, the in-person meeting may continue even if technology issues prevent remote participation.

Join Zoom Meeting

<https://louisvilleco.zoom.us/j/82010792826>

Meeting ID: 820 1079 2826

One tap mobile

+17193594580,,82010792826# US

+12532050468,,82010792826# US

Meeting ID: 820 1079 2826

Find your local number: <https://louisvilleco.zoom.us/u/kd2K8OHkqO>

The Board will accommodate public comments during the meeting. Anyone may also email comments to the Board prior to the meeting at Building@LouisvilleCO.gov.

1. Call to Order
2. Roll Call
3. Approval of Agenda
4. Approval of Meeting Minutes from 1.14.26
5. Public Comments on Items Not on the Agenda

Persons planning to attend the meeting who need sign language interpretation, translation services, assisted listening systems, Braille, taped material, or special transportation, should contact the City Clerk's Office at 303 335-4574 or ClerksOffice@LouisvilleCO.gov. A forty-eight-hour notice is requested.

Si requiere una copia en español de esta publicación o necesita un intérprete durante la reunión, por favor llame a la Ciudad al 303.335.4574.

6. Discussion of City of Louisville's Wildland Urban Interface Code
7. Discussion Items for Next Meeting
8. Adjourn

Building Code Board of Appeals

Meeting Minutes

**January 14, 2026
City Hall, Council Chambers
749 Main Street
2:00pm**

Call to Order – Chair Mason Gatto called the meeting to order at 2:07pm.

Roll Call was taken and the following members were present:

Board Members Present:

Matt Berry
Mason Gatto
Peter Geise

Board Members Absent:

Steve Norwood

Staff Members Present:

Chad Root, Chief Building Official
Jenny Lane, Senior Permit Technician
Robert Zuccaro, Director of Community Development

Approval of Agenda

Approved by all members.

2026 Election of Officers

Chair – Peter Geise

Approved by all members

Vice Chair – Matt Berry

Approved by all members

2026 Meeting Calendar approval

Meet as needed throughout the year; approved by all members

Posting Location approval – the approved posting locations are City Hall, Library, PD/Court, Rec Center and City website

Approved by all members.

Approval of Meeting Minutes from 6.11.25

Approved by all members.

Public Comments on Items Not on the Agenda

None.

Discuss Ban on Junipers and Clarifying Amendments to Chapter 15.70 – Fire Hardening Code for Structures

Board members discussed reasoning for ordinance.

Zuccaro explained that this would be an emergency ordinance to ban junipers by City Council and would like the BCBOA members' feedback. The City of Boulder has a juniper ban in place.

Board members discussed removing the flame spread index requirement since it conflicts with some product specifications. Text as written refers only to "Class A" and testing to ASTM E84 or UL 723 standards. The flame spread index isn't as common as a test/label than the Class system. Members stated they agree as written.

Geise brought up the concern that products should be available. **Root** explained that products are available.

Additional requirement that any applied material must be impregnated into the product and must have a lifetime warranty from the manufacturer. Members stated they agree as written.

Discussion of differentiation between juniper species and if they are native to this area. **Zuccaro** clarified that the ordinance would ban all juniper species, similar to requirements in the City of Boulder.

Gato questioned if we would allow sales of juniper species within the City. **Zuccaro** stated that would could inform local nurseries but cannot explicitly restrict sales within City limits.

MOTION: to recommend the ordinance as written

Approved by all members

Discussion Items for Next Meeting

None.

Adjourn – The meeting was adjourned at 3:00pm.

SUBJECT: LOUISVILLE WUI CODE DRAFT REVIEW

DATE: FEBRUARY 11, 2026

**PRESENTED BY: ROB ZUCCARO, COMMUNITY DEVELOPMENT DIRECTOR
CHAD ROOT, CHIEF BUILDING OFFICIAL**

SUMMARY:

Staff is presenting a draft Wildland Urban Interface (WUI) code to the Building Code Board of Appeals (BCBOA) for review and recommendation to City Council (Attachment No. 1). Adoption of a local WUI code is mandated by State law and must meet or exceed the standards of the Colorado Wildfire Resiliency Code (CWRC).

BACKGROUND:

SB23-166

In 2023, the State enacted SB23-166, which established the process for developing a minimum State WUI code and set requirements for local adoption of either the State code or a local code meeting or exceeding State standards. Local adoption is required by April 1, 2026, with implementation by July 1, 2026.

SB23-166 created the Wildfire Resiliency Code Board (WRCB) to develop and administer the State code. The Board consists of 21 voting members representing local government, homebuilding and building code professions, fire behavior specialists, fire service professionals, property and casualty insurers, public and private utilities, and land-use planning. Three ex officio members represent the State Forest Service, the State Department of Fire Protection and Control, and the Colorado Resiliency Office.

The WRCB adopted the 2025 Colorado Wildfire Resiliency Code (CWRC) and corresponding map on June 1, 2025, and adopted the associated Rules and Regulations on July 1, 2025, thereby establishing the State minimum standards.

Link: [SB23-166](#)

Link: [Adopted Wildfire Resiliency Code](#)

Link: [Adopted Rules and Regulations](#)

Link: [Adopted Wildfire Resiliency Code Map](#) (CWRC Map)

The CWRC defines the WUI as:

“That geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.”

The purpose of the State minimum code is to establish standards for development at the interface with wildland or vegetative fuels. It is not intended to provide broader fire-

resiliency standards across an urban environment, as Louisville's Fire Hardening Code for Structures ([LMC Chapter 15.70](#)) does.

Fire Intensity Classifications

The CWRC establishes and maps three Fire Intensity Classifications: Low, Moderate, and High. These classifications are based on factors including vegetative fuel types, anticipated flame length, terrain and topography, rate of spread and spotting, and suppression difficulty.

The CWRC map was developed in coordination with the State Forest Service and is based on the [2022 Colorado Wildfire Risk Assessment \(CO-WRA\)](#), which is also used for the State Forest Service's [Wildfire Risk Viewer](#). The CWRC Map uses the CO-WRA data and aggregates and "smooths" the base data to account for local variability.

Regulated Elements

The CWRC regulates both Structure Hardening (Chapter 4) and Site and Area Requirements (Chapter 5) for new or existing development within Fire Intensity Classification areas. Site and Area Requirements, commonly referred to as "defensible space" standards, govern landscaping, fencing, storage of materials, and related features around structures.

Two classes of requirements apply:

- Class 1 standards apply to Low-intensity areas
- Class 2 standards apply to Moderate- and High-intensity areas

Summary of the Main Provisions of the CWRC

Class 1 – Structure Hardening

Building material and construction standards for:

- Roof coverings
- Gutters and downspouts
- Vent openings

Class 2 – Structure Hardening

Includes all Class 1 standards, plus additional standards for:

- Exterior walls
- Flashing
- Underfloor enclosures
- Building projections
- Exterior windows
- Exterior doors
- Garage doors
- Detached accessory structures within 50 feet

Class 1 – Site and Area Requirements

Immediate Zone (0–5 feet from structure):

- Noncombustible hard-surface ground cover
- Planting prohibited, except ignition-resistant plants from the State Forest Service's Low-Flammability Landscape Plants list

Additional Class 1 requirements include:

- Tree pruning within 10 feet of structures
- Fences and retaining walls within 8 feet of structures
- Marking roads, fire protection equipment, and addresses

Class 2 – Site and Area Requirements

Includes all Class 1 standards, plus:

Intermediate Zone (5–30 feet)

- Removal of dead plant materials
- Reduction of surface fuel accumulation
- Tree spacing and pruning
- Shrub spacing

Expanded Zone (30–100 feet)

- Tree crown spacing requirements

Additional Provisions

The CWRC includes appendices addressing Permits, Construction Documents, and Inspections and Enforcement.

The CWRA is not retroactive and includes the following notable provisions:

- Additions to existing structures with a footprint of 500 sq. ft. or more must comply.
- Roof covering replacement exceeding 25% of roof area must comply.
- Exterior wall replacement exceeding 25% of exterior wall area must comply.
- Exemptions and variances are provided for historic structures.
- A "Ground Truthing" process allows Code Officials to adjust classifications based on site-specific conditions and vegetative fuels within 300 feet of a parcel boundary.

The Rules and Regulations allow jurisdictions to adopt a local map consistent with State standards. Jurisdictions may also petition the WRCB for code modifications. Local Code Officials may approve alternative materials, designs, and methods that meet the code's intent.

2024 IWUIC

The CWRC is informed by the 2024 International Wildland Urban Interface Code (IWUIC), but customizes the code with the intent of creating a minimum code standard that can be applied broadly across the State. The following link to the 2024 IWUIC is provided for additional background information.

Link: [2024 IWUIC](#)

ANALYSIS:

Wildfire Spread

Wildfire spreads from wildland areas to structures through embers, radiant heat, or direct flame contact. Ember exposure is the most common mechanism for structure ignition during wildland fires. Embers can ignite combustible materials around a structure, enter through vents or other openings, or directly ignite exterior building materials.

Understanding the primary pathways by which fire transitions from wildland areas into urban environments helps prioritize effective mitigation strategies. For example, a home-hardening building code may focus primarily on preventing ember intrusion, given its frequency as an ignition source. A WUI code, by contrast, places additional emphasis on landscaping, vegetation management, and defensible space to reduce the risk of direct flame contact and fire spread through nearby trees or shrubs.

Link: [Summary of How Fire Spreads in the WUI \(nist.gov\)](#)

Three primary environmental factors influence wildland fire intensity and spread: topography, weather, and fuel. Steep slopes, channels, and gullies can accelerate fire spread and offer limited opportunities for mitigation. Weather—particularly wind and drought—also plays a major role in fire behavior and is largely uncontrollable. During the Marshall Fire, extreme wind conditions and prolonged drought significantly contributed to fire spread from wildland areas into urban neighborhoods and to rapid fire spread within the neighborhoods themselves.

Vegetative fuel type and density also affect fire intensity. Different vegetation types produce varying ember loads, radiant heat levels, and flame spread characteristics. Grasslands with limited trees and shrubs generally present lower potential fire intensity; however, under certain drought and wind conditions, grasslands can still rapidly carry fire from wildland areas into urban environments.

Wildfires and Conflagration

A conflagration is a fire that spreads uncontrollably from structure to structure, regardless of whether it originated in wildland vegetation. Wildfires are a natural and necessary component of many ecosystems and help reduce the accumulation of vegetative fuels. However, decades of wildfire suppression have disrupted natural fire cycles and contributed to increased wildfire intensity in many areas of the western United States.

The graph below illustrates a trend of decreasing annual wildfire occurrence alongside an increase in the number of acres burned per fire. Concurrently, development has expanded into areas near wildlands with higher fire-intensity potential. This combination has increased the likelihood of wildfires entering urban environments and transitioning into conflagration fires.

Figure 1: Fire Occurrence and Acres Burned (IBHS– Suburban Wildfire Adaptation Roadmaps
United States Annual Fire Occurrence Data: Interagency Fire Center

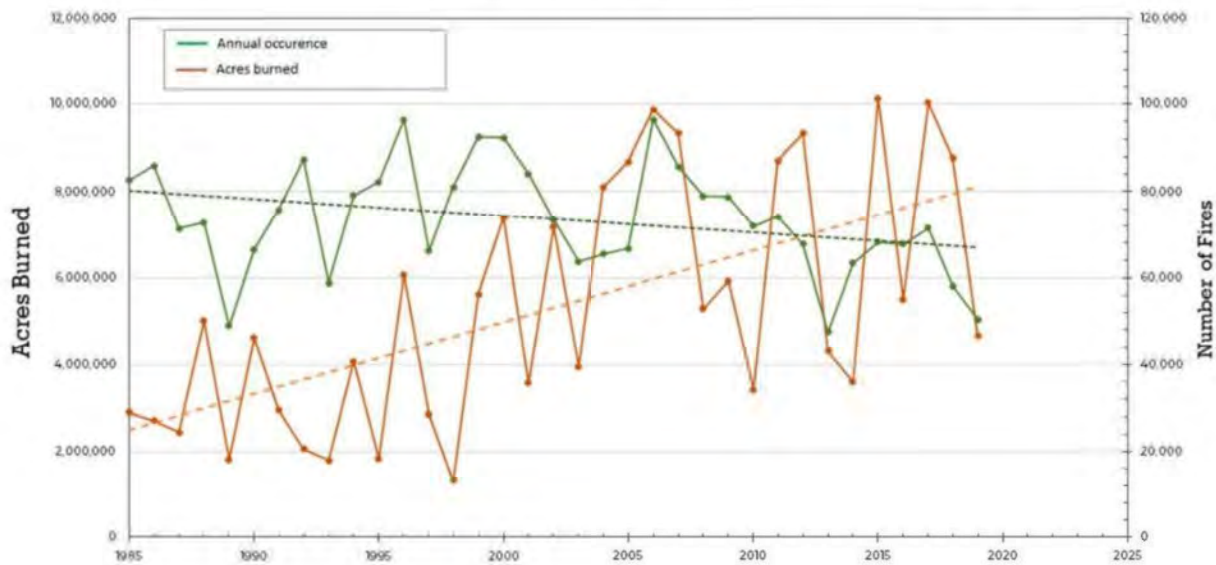


Figure 5. Number of fires (green) and acres burned (brown) since 1985. Linear trend lines (dashed) are also included. Data courtesy of the Interagency Fire Center.

Proposed Louisville WUI Code

The proposed Louisville Wildland Urban Interface (WUI) Code is based on the Colorado Wildfire Resiliency Code (CWRC) and is formatted for adoption as a new chapter within the City's building codes in Louisville Municipal Code (LMC) Title 15 – Buildings and Construction. The proposed WUI Code would supplement the recently adopted [Chapter 15.70 – Fire Hardening Code for Structures](#).

While Chapter 15.70 applies citywide, the proposed WUI Code would apply only to properties designated and mapped as Wildfire Hazard Areas based on Fire Intensity Classifications, as discussed further below.

The proposed Louisville WUI Code includes strengthening amendments to the base CWRC to align its provisions with the City's Fire Hardening Code for Structures where the State code is less stringent. These strengthening amendments are summarized below.

Adds the following provisions to Class 1 – Structure Hardening:

The CWRC only addresses roofing, gutters and downspouts, and vent openings. To align with the City's Fire Hardening Code for Structures, the following strengthening amendments are proposed.

- Fire resistant siding meeting Class A standards.
- Fire resistant eaves meeting Class A standards.
- Fire resistant decking surface, stairs, and railings meeting Class A standards and require the surface below a deck 6 feet or closer to the ground to be concrete or gravel above 6 mil plastic.
- Gutter covers to prevent accumulation of debris. The CWRC does not address this item.

Adds the following provisions to Class 2 – Structure Hardening:

The CWRC addresses siding and eave materials, but allows several alternatives, including one-hour rated wall assemblies, that would not meet Class A standards. Additionally, the CWRC addresses decking, but only addresses the walking surface of decks and allows a broader range of materials

- Fire-resistant siding meeting Class A standards.
- Fire-resistant eaves meeting Class A standards.
- Fire-resistant decking surface, stairs, and railings meeting Class A standards, and a requirement that the surface below any deck located 6 feet or closer to the ground be concrete or gravel placed above 6-mil plastic.

Adds the following provision to Class 2 – Site and Area Design:

- Dormant grasses and weeds must be mowed to a height not to exceed six inches

Regulatory Map

In addition to adopting WUI building code standards, the City must adopt a regulatory map to identify areas where the code will apply based on potential wildfire risk and vulnerability to fire spread. City staff is currently working with the Louisville Fire Protection District (LFPD) to develop recommended mapping boundaries that meet or exceed State code standards. As part of this effort, LFPD is completing a Wildfire Conflagration Risk Assessment (WCRA), which will provide additional data to inform the City's WUI boundary.

The CWRC Map establishes the minimum areas subject to State code standards based on probable fire intensity and the potential for fire spread. Fire Intensity Classification layers were developed using smoothing, filtering, and aggregation techniques to address localized variability in the underlying data and to eliminate small, isolated "occluded" areas within urban environments that present relatively low risk. New and existing development within designated Fire Intensity Classification areas would be required to comply with either Class 1 or Class 2 standards.

Attachment No. 2 includes mapping inputs currently being evaluated by the City and LFPD for defining Louisville's WUI boundaries. These maps combine data from the State Forest Service, the CWRC Map, the LFPD WCRA, and the Marshall Fire burn perimeter.

The LFPD WCRA includes a modeled Structure Vulnerability Index derived from 1,000 potential random ignition points distributed throughout the City, rather than limited to surrounding wildland areas. The model considers existing construction characteristics, proximity of structures, vegetation, topography, and wind conditions from both the west and north. A Structure Vulnerability Index of 0.7 or greater indicates high vulnerability.

Considerations for determining the extent of the City's local WUI map could include:

- Major roads can function as fire breaks and may serve as logical boundaries for the map.
- Neighborhood boundaries may also provide logical mapping lines and would allow uniform regulation within each neighborhood.
- Smaller, "occluded" wildland areas surrounded by development—such as Coyote Run Open Space and Daughenbaugh/Warembourg Open Space—which exhibit varying Fire Intensity Classifications in the Wildfire Risk Viewer but are not included in the CWRC Map. Mapping methodology may consider excluding regulation around such areas, as they generally present lower wildfire risk due to early detection, rapid fire department access, and limited potential for fire growth.
- The Coal Creek corridor, which also shows varying Fire Intensity Classifications in the Wildfire Risk Viewer but is not included in the CWRC Map. While it shares some characteristics with occluded areas, it presents additional fire-spread risk due to continuous wildland vegetation connected to larger wildland areas, increasing the potential for more extensive and difficult-to-suppress fires.

RECOMMENDATION:

Staff is requesting that the BCBOA make a recommendation to the City Council on adoption of the draft Louisville WUI Code. Options for consideration include:

- Recommending adoption as drafted.
- Recommending adoption with specified amendments. Any amendments would need to meet or exceed the standard established by the CWRC in order to meet state law.

Staff is also seeking input from the BCBOA on mapping methodology and related considerations. This feedback will be provided to City Council for consideration in determining the final WUI zone boundaries and areas of applicability.

ATTACHMENTS:

1. Draft Louisville WUI Code
2. WUI Mapping Data

BCBOA REVIEW DRAFT

Chapter 15.80 – Wildland Urban Interface

Section 15.80.010 – Purpose.

The purpose of this Chapter is to establish minimum regulations for the safeguarding of life and for property protection. Regulations in this Chapter are intended to mitigate the risk to life and structures from intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate structure fires from spreading to wildland fuels. The extent of the regulations in this Chapter are intended to be tiered commensurate with the relative level of hazard present. The unrestricted use of property in wildland-urban interface areas is a potential threat to life and property from fire and resulting erosion. Safeguards to prevent the occurrence of fires and to provide adequate fire protection facilities to control the spread of fire in wildland-urban interface areas shall be in accordance with this Chapter. This Chapter shall supplement the City's building and fire codes to provide for special regulations to mitigate the fire- and life-safety hazards of the wildland-urban interface areas.

Section 15.80.020 – Applicability.

- A. The provisions of this Chapter shall apply to the construction, alteration, movement, repair, maintenance and use of any building, structure or premises that contain occupiable and/or habitable space, or change in use resulting in an occupiable and/or habitable space, unless expressly exempt, within the wildland-urban interface areas, as designated in this Chapter. The provisions of this Chapter shall supersede the requirements of Chapter 15.70 for areas designated as a Wildfire Hazard Area by Chapter 15.80.
- B. Conflicting provisions. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall govern. Where, in any specific case, different sections of this Chapter, or any other adopted code, specify different materials, methods of construction or other requirements, the most restrictive shall govern.
- C. Buildings or conditions in existence at the time of the adoption of this Chapter are allowed to be maintained and to have their use or occupancy continued, if such condition, use or occupancy was legal at the time of the adoption of this Chapter, provided that such continued use does not constitute a distinct danger to life or property.
- D. Additions or alterations. Additions or alterations shall be permitted to any building or structure without requiring the existing building or structure to comply with the requirements of this Chapter, provided that, when the work increases the footprint of the existing structure by 500 square feet or greater, the addition or alteration must conform to that required for a new building or structure.
- E. Roof coverings. When roof coverings are replaced, or when 25 percent or more of the surface area of the roof is replaced, or where work to reconstruct, alter, or repair the roof covering effectively replaces such material, such roof coverings shall comply with the standards for roof coverings in this Chapter.

- F. Exterior walls. When walls of buildings or structures are replaced, or when 25 percent or more of the total exterior wall surface area is replaced, or where work to reconstruct, alter or repair the exterior walls effectively replaces the exterior wall material, such exterior walls shall comply with the standards for exterior walls in this Chapter and the property shall come into compliance with the Immediate Zone defensible space standards in this Chapter.
- G. Factory-Built Structures (nonresidential, residential, and tiny homes). Structure hardening provisions for factory-built structures as defined by sections 24-32-3302(9), (10), (11), and (35), C.R.S., are in accordance with Rules adopted by the Division of Housing in 8 CCR 1302-1, Rule 2 Codes and Standards.
- H. HUD Code Homes. Homes built to the HUD Manufactured Home Construction and Safety Standards are exempt from structure hardening requirements of this Chapter on their first installation. Homes built to the HUD Manufactured Home Construction and Safety Standards which are moved into an applicable wildland-urban interface area are subject to the provisions of this Chapter.
- I. Historic structures. The Building Official may provide an exception for the repair or rehabilitation of an historic structure upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure, and the variance is the minimum necessary to preserve the historic character and design of the structure, within the spirit of this Chapter. This exception may be granted for any structure listed as a local landmark or determined to be a contributing structure under Chapter 15.36 of this Code or a property listed in the National Register of Historic Places.
- J. Maintenance. Buildings, structures, landscape materials, vegetation, defensible space or other devices or safeguards required by this Chapter shall be maintained in conformance to the code edition under which installed.
- K. Temporary uses. The Building Official is authorized to issue a permit for temporary structures, uses, equipment and systems. Such permits shall not to exceed 180 days. The Building Official may grant extensions for demonstrated cause.
 - 1. Conformance. Temporary uses, equipment and systems shall conform to the requirements of this Chapter as necessary to ensure health, safety and general welfare.
 - 2. Temporary service utilities. The Building Official is authorized to give permission to temporarily supply service utilities.
 - 3. Termination of approval. The Building Official is authorized to terminate such permit for temporary uses, equipment and systems and to order the same to be discontinued.
- L. Exemptions. Exemptions from the requirements of this Chapter shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this Chapter or any other laws or ordinances. Compliance with this Chapter shall not be required for the following:
 - 1. Interior alterations of existing structures.
 - 2. Painting, staining and similar maintenance or restorative work.

3. One-story detached accessory, nonhabitable structures, such as tool and storage sheds, playhouses and similar uses, provided that the floor area does not exceed 120 square feet and the structure is located greater than or equal to 10 feet from the nearest adjacent occupiable structure.
 4. Accessory structures and buildings of an accessory character classified as Utility and Miscellaneous Group U (including Agricultural Structures) located more than 50 feet from a structure containing occupiable or habitable space.
 5. Fences located more than 8 feet from a habitable structure.
 6. Any thirty-five acre parcel with only one residential structure on it that does not abut a residential or commercial area.
- the testing procedures. Such tests shall be performed by a party acceptable to the Building Official.

Section 15.80.030 – Alternative materials, design and methods.

The provisions of this Chapter are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this Chapter, provided that any such alternative has been approved where the Building Official finds that the proposed alternative is satisfactory and complies with Sections 104.2.2.2 through 104.2.2.7, as applicable.

- A. Application. A request to use an alternative material, design or method of construction may be submitted in writing to the Building Official for approval. Where the alternative material, design or method of construction is not approved, the Building Official shall respond in writing, stating the reasons the alternative was not approved.
- B. Compliance with intent of Chapter. An alternative material, design or method of construction shall comply with the intent of the provisions of this Chapter.
- C. Equivalency criteria. An alternative material, design or method of construction shall, for the purpose intended, be not less than the equivalent of that prescribed in this Chapter with respect to all of the following, as applicable:
 1. Quality.
 2. Strength.
 3. Effectiveness.
 4. Durability.
 5. Safety, other than fire safety.
 6. Fire safety.
- D. Tests. Tests conducted to demonstrate equivalency in support of an alternative material, design or method of construction application shall be of a scale that is sufficient to predict performance of the end use configuration. Tests shall be performed by a party acceptable to the Building Official.
- E. Reports. Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this Chapter, shall comply with the following:
 1. Evaluation reports. Evaluation reports shall be issued by an approved agency and use of the evaluation report shall require approval by the Building Official for the

- installation. Criteria used for the evaluation shall be identified within the report and, where required, provided to the Building Official.
2. Reports not complying with Subsection E.1. shall describe criteria, including but not limited to any referenced testing or analysis, used to determine compliance with the intent of this Chapter and justify equivalence. The report shall be prepared by a qualified engineer, specialist, laboratory or fire safety specialty organization acceptable to the Building Official. The Building Official is authorized to require design submittals to be prepared by, and bear the stamp of, a registered design professional.
 3. Peer review. The Building Official is authorized to require submittal of a peer review report in conjunction with a request to use an alternative material, design or method of construction, prepared by a peer reviewer that is approved by the Building Official.
- F. Modifications. Where there are practical difficulties involved in carrying out the provisions of this Chapter, the Building Official shall have the authority to grant modifications for individual cases, provided that the Building Official shall first find that one or more special individual reasons make the strict letter of this Chapter impractical, that the modification is in conformance with the intent and purpose of this Chapter, and that such modification does not lessen health, life and fire safety requirements. The details of the written request and action granting modifications shall be recorded and entered into the files of the code enforcement agency.

Section 15.80.040 – Applications and permits.

The Building Official is authorized to receive applications, review construction documents and issue permits for construction regulated by this Chapter, issue permits for operations regulated by this Chapter, inspect the premises for which such permits have been issued and enforce compliance with the provisions of this Chapter.

- A. Access to property. For the purpose of inspecting and enforcing the provisions of this Chapter and the terms and conditions of any permit issued under this Chapter, the Building Official is authorized to enter upon private property at reasonable times and upon reasonable notice for the purpose of determining compliance with this Chapter and to evaluate conditions relative to the permit application.
- B. Authorization to access property. The owner or occupant of the property having a permit under this Chapter shall allow the Building Official access to the property to perform the required inspections. If access is denied, the Building Official shall apply to the Municipal Court to seek authority to access the property. The Building Official shall inspect, as often as necessary, buildings and premises, including such other hazards or appliances designated by the Building Official for the purpose of ascertaining and causing to be corrected any conditions that could reasonably be expected to cause fire or contribute to its spread, or any violation of the purpose of this code and of any other law or standard affecting fire safety.
- C. Identification. The Building Official shall carry proper identification when inspecting structures or premises in the performance of duties under this code.

- D. Notices and orders. The Building Official shall issue all necessary notices or orders to ensure compliance with this code. Where the Building Official finds any work regulated by this code being performed in a manner contrary to the provisions of this code or in a dangerous or unsafe manner, the Building Official is authorized to issue a stop work order.
1. The stop work order shall be in writing and shall be given to the owner of the property, the owner's authorized agent or the person performing the work. Upon issuance of a stop work order, the cited work shall immediately cease. The stop work order shall state the reason for the order and the conditions under which the cited work is authorized to resume.
 2. Where an emergency exists, the Building Official shall not be required to give a written notice prior to stopping the work.
- E. Official records. The Building Official shall keep official records as required below and shall make such records available for public inspection in accordance with applicable laws. Such official records shall be retained for not less than 5 years or for as long as the structure or activity to which such records relate remains in existence, unless otherwise provided by other regulations.
1. Approvals. The Building Official shall keep a record of approvals and issued permits.
 2. Inspections. The Building Official shall keep a record of each inspection made, including notices and orders issued, showing the findings and disposition of each.
 3. Code alternatives and modifications. The Building Official shall keep record of applications, tests and final decisions for alternative materials, design and methods of construction and equipment and applications for modifications and final decisions in accordance with Section 15.80.030.
 4. Fees. The Building Official shall keep a record of fees collected and refunded in accordance with this code.
- F. Materials and equipment reuse. Materials, equipment and devices shall not be reused unless such elements are in good working order and approved.
- G. Other agencies. When requested to do so by the Building Official, other officials of this jurisdiction shall assist and cooperate with the Building Official in the discharge of the duties required by this Chapter.
- H. Violations and penalties It shall be unlawful for any person, firm, or corporation to erect, construct, enlarge, alter, repair, move, improve, remove, convert or demolish, equip, use, occupy or maintain any building or structure or cause or permit the work to be done, in violation of the provisions of this chapter or the terms of the code or standards adopted and incorporated in this Chapter. Any person convicted of a violation of any provision of this Chapter shall be subject to the penalty provided in Section 1.28.010.
- I. Schedule of permit fees. For work requiring a permit under this Chapter, a fee for each permit shall be paid in accordance with a fee schedule adopted by resolution of the City Council from time to time.

- J. Refusal to issue a permit. Where the application or construction documents do not conform to the requirements of pertinent laws, the Building Official shall reject such application in writing, stating the reasons therefor.
- K. Time limitation of Application and Expiration of Permit. An application for a permit for any proposed work shall be deemed to have been abandoned 180 days after the date of filing, unless such application has been pursued in good faith or a permit has been issued; except that the Building Official is authorized to grant one or more extensions of time for additional periods not exceeding 180 days each. The extension shall be requested in writing and justifiable cause demonstrated. Every permit issued by the Building Official under the provisions of this Chapter shall expire by limitation and become null and void if the building, use or work authorized by such permit is not commenced within 180 days from the date of such permit, or if the building, use or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days.
- L. Any permittee holding an unexpired permit is allowed to apply for an extension of the time within which work is allowed to commence under that permit where the permittee is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official is authorized to extend the time for action by the permittee for a period not exceeding 180 days on written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. Permits shall not be extended more than once.
- M. Permits required. Unless otherwise exempted, buildings or structures regulated by this Chapter shall not be erected, constructed, altered, repaired, moved, removed, converted, demolished or changed in use or occupancy unless a separate permit for each building or structure has first been obtained from the Building Official.
- N. Where required by the Building Official, a permit shall be obtained for the following activities, operations, practices or functions within a wildland-urban interface area:
1. Automobile wrecking yard.
 2. Candles and open flames in assembly areas.
 3. Explosives or blasting agents.
 4. Fireworks.
 5. Flammable or combustible liquids.
 6. Hazardous materials.
 7. Liquefied petroleum gases.
 8. Lumberyards.
 9. Motor vehicle fuel-dispensing stations.
 10. Open burning.
 11. Pyrotechnical special effects material.
 12. Tents, canopies and temporary membrane structures.
 13. Tire storage.
 14. Welding and cutting operations.

- O. Construction documents General. Plans, engineering calculations, diagrams and other data shall be submitted in not fewer than two sets, or in a digital format where allowed by the building official, with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the Building Official is authorized to require additional documents to be prepared by a registered design professional.

Exception: Submission of plans, calculations, construction inspection requirements and other data, if it is found that the nature of the work applied for is such that reviewing of plans is not necessary to obtain compliance with this Chapter.

- P. Information on plans and specifications. Plans and specifications shall be drawn to scale and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in detail that it will conform to the provisions of this Chapter and relevant laws, ordinances, rules and regulations.
1. Site plan. In addition to the requirements for plans City's adopted building codes, site plans shall include topography, width and percent of grade of access roads, landscape and vegetation details, locations of structures or building envelopes, existing or proposed overhead utilities, occupancy classification of buildings, types of ignition-resistant construction of buildings, structures and their appendages, roof classification of buildings and site water supply systems. The Building Official is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.
 2. Vegetation management plans. Where utilized by the permit applicant, vegetation management plans shall be prepared and shall be submitted to the Building Official for review and approval as part of the plans required for a permit.
 3. Fire protection plan. Where required by the Building Official, a fire protection plan shall be prepared and shall be submitted to the Building Official for review and approved as a part of the plans required for a permit.
 4. Other data and substantiation. Where required by the Building Official, the plans and specifications shall include classification of fuel loading, fuel model light, medium or heavy, and substantiating data to verify classification of fire-resistive vegetation.
 5. Vicinity plan. In addition to the requirements for site plans, the Building Official may require plans that include details regarding the vicinity within 300 feet of lot lines, including other structures, slope, vegetation, fuel breaks, water supply systems and access roads.

Section 15.80.050 – Definitions

For the purpose of this chapter, the following terms, phrases, words and their derivations shall have the meanings given herein:

- A. ACCESSORY STRUCTURE. A building or structure used to shelter or support any material, equipment, chattel or occupancy other than a habitable building.

- B. BUILDING. Any structure intended for supporting or sheltering any occupancy.
- C. BUILDING OFFICIAL. The official designated by the jurisdiction to interpret and enforce this Chapter, or the Building Official's authorized representative.
- D. DEFENSIBLE SPACE. An area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.
- E. FIRE INTENSITY CLASSIFICATION. The level of fire intensity identified for areas where significant fuel hazards and associated dangerous fire behavior may exist, based upon vegetative fuels, topography, weather conditions, and flame length value.
- F. GROUND-TRUTHING. A process by which a property owner or authorized representative may request an adjustment to the fire intensity classification for individual parcels based on actual conditions within such parcel, and conditions within 300' of such parcel.
- G. HABITABLE SPACE. A space in a building for living, sleeping, eating or cooking.
- H. HEAVY TIMBER CONSTRUCTION. As described in Section 602.4 of the 2024 International Building Code.
- I. HOME IGNITION ZONE. Home Ignition Zone ("HIZ") is the home and the area around the home (or structure). The HIZ takes into account both the potential of the structure to ignite and the quality of defensible space surrounding it.
- J. IGNITION-RESISTANT VEGETATION. Plants that are less likely to readily ignite from a flame or other ignition source and produce fewer embers. While they can still be damaged by fire, their foliage and stems don't significantly contribute to the intensity of the fire.
- K. MULTILAYERED GLAZED PANELS. Window or door assemblies that consist of two or more independently glazed panels installed parallel to each other, having a sealed air gap in between, within a frame designed to fill completely the window or door opening in which the assembly is intended to be installed.
- L. NONCOMBUSTIBLE. As applied to building construction material means a material that, in the form in which it is used, is either one of the following:
 - 1. Material of which no part will ignite and burn when subjected to fire.
 - 2. Any material conforming to ASTM E136 shall be considered noncombustible within the meaning of this section.

- M. OCCUPIABLE SPACE. A room or enclosed space designed for human occupancy in which individuals congregate for amusement, education or similar purposes or in which occupants are engaged at labor.
- N. ROOF ASSEMBLY. A system designed to provide weather protection and resistance to design loads. The system consists of a roof covering and roof deck or a single component serving as both the roof covering and the roof deck. A roof assembly can include an underlayment, thermal barrier, ignition barrier, insulation or a vapor retarder.
- O. ROOF COVERING. The covering applied to the roof deck for weather resistance, fire classification or appearance.
- P. ROOF DECK. The flat or sloped surface not including its supporting members or vertical supports.
- Q. SLOPE. The variation of terrain from the horizontal; the number of feet rise or fall per 100 feet measured horizontally, expressed as a percentage.
- R. STRUCTURE. That which is built or constructed.
- S. STRUCTURE IGNITION ZONE. Structure Ignition Zone (“SIZ”) is the structure and the area around the structure (or home). The SIZ takes into account both the potential of the structure to ignite and the quality of defensible space surrounding it.
- T. TREE CROWN. The primary and secondary branches growing out from the main stem, together with twigs and foliage.
- U. WILDLAND-URBAN INTERFACE. That geographical area where structures and other human development meets or intermingles with wildland or vegetative fuels.

Section 15.80.060 – Wildland-Urban Interface Area Designations

The requirements of this Chapter shall apply to all parcels located within designated Wildfire Hazard Areas and corresponding fire intensity classifications as identified on the City’s Wildland Urban Interface Map, which is adopted and incorporated into this Chapter. A copy of such map will be maintained by the City and made available to the public. The level of structure hardening, defensible space, and other mitigation measures required shall correspond to Wildfire Hazard Area designation on the Wildland-Urban Interface Map. The Wildland-Urban Interface Map meets or expands the areas designated by the Colorado Wildfire Resiliency State Code Map, adopted by the state Wildfire Resiliency Code Board for the applicable fire intensity classification. These areas have been expanded to account for potential spread of wildfire into the city, to prevent potential fire conflagrations resulting from wildfire spread, and based on historic wildfire and conflagration spread in the city.

- A. Fire Intensity Classification shall be identified on the Wildland-Urban Interface Map. Fire Intensity Classification is determined by expected wildfire behavior, including flame length and suppression difficulty and is separated into three levels: low, moderate, and

high fire intensity classifications. The identified fire intensity classification establishes code requirements for construction and mitigation.

1. **Low Fire Intensity Classification.** Low Fire Intensity Classification is identified in areas with light to medium surface fuels, such as grasses, shrubs, and scattered low-density vegetation. These fuels are often discontinuous, which limits flame propagation but can sustain burning under moderate weather conditions. Fires in this class may occur on gentle to moderate slopes, where topography begins to influence the rate of spread. Although flame lengths remain relatively small—typically less than two feet—limited spotting may occur, especially with wind. Trained firefighters with protective equipment and standard hand tools can usually suppress these fires through direct attack, particularly on slopes under 30 percent. Mechanized equipment is typically unnecessary.

Key Characteristics Include:

- a. **Fuels:** Light to medium surface fuels, including grasses, shrubs, and scattered vegetation (e.g., WNL, USL fuel types).
 - b. **Flame Length:** Less than 2 feet.
 - c. **Rate of Spread:** Low, increasing with slopes over 20 percent.
 - d. **Spotting:** Very short-range spotting is possible under windy conditions.
 - e. **Terrain Influence:** More active fire behavior on moderate slopes (20 to 30 percent).
 - f. **Suppression Difficulty:** Easily suppressed by trained firefighters using basic protective gear and hand tools. Direct attack is effective, and mechanized support is rarely needed.
2. **303.2.2 Moderate Fire Intensity Classification.** Moderate Fire Intensity Classification is identified in areas with moderate to heavy fuel loads, such as dense shrubs, small trees, and accumulated ground fuels. Fires in this class present continuous horizontal and vertical fuel arrangements, allowing flames to reach up to 8 feet in length. Fire behavior is notably influenced by moderate to steep slopes, often accelerating the spread. Short-range spotting becomes more common, complicating suppression efforts. Ground crews typically require mechanized support, such as engines and dozers, to establish control lines. Aircraft assistance may be necessary, particularly in inaccessible terrain. There is a significant increase in the potential for property damage and risk to life, especially in wildland-urban interface areas.

Key Characteristics Include:

- a. **Fuels:** Moderate to heavy fuels, including dense shrublands, small trees, timber litter, and canopy fuels (e.g., USH, UIH fuel types).
- b. **Flame Length:** Up to 8 feet.
- c. **Rate of Spread:** Moderate to high, increasing significantly on slopes over 30 percent.
- d. **Spotting:** Short-range spotting is common.
- e. **Terrain Influence:** Steep slopes (30 percent or greater) increase fire spread and intensity.
- f. **Suppression Difficulty:** Challenging for ground crews without support from engines, dozers, or aircraft. Dozers and plows are generally effective on moderate terrain.

3. 303.2.3 High Fire Intensity Classification. High Fire Intensity Classification is identified in areas with heavy, continuous fuel loads, such as dense forest canopies, thick understory growth, and heavy dead/downed material. Fires in this class frequently occur on steep slopes, often exceeding 40 percent, where topography dramatically increases the rate of spread and severity. Flame lengths can exceed 30 feet, and both short- and medium-range spotting are common, particularly in windy conditions. Direct suppression by ground crews is typically ineffective, requiring indirect attack strategies, such as backburns and aerial retardant drops. Fires in this class pose extreme risk to life, property, and firefighter safety, especially in rugged or remote areas.

Key Characteristics Include:

- a. Fuels: Heavy fuels, including dense forests, urban core areas with heavy fuel loads, and canopy-dominated regions (e.g., WNH, USH, UCH fuel types).
 - b. Flame Length: Up to 30 feet or more.
 - c. Rate of Spread: Rapid, especially on slopes greater than 40 percent.
 - d. Spotting: Short-range spotting is common; medium-range spotting is possible under windy conditions.
 - e. Terrain Influence: Slopes over 40 percent amplify intensity and spread, creating dangerous conditions for suppression.
 - f. Suppression Difficulty: Direct attack by ground forces and dozers is generally ineffective. Indirect strategies (backburning, aerial support) are often necessary. These fires present significant danger to life, property, and responder safety.
- B. Ground-truthing. A property owner or authorized representative may request local ground truthing of property. As determined by the Building Official, the fire intensity classification and associated requirements may be adjusted based on a review of the conditions related to vegetative fuels on the parcel and within 300' of the parcel boundary, topography, local weather patterns, and fire behavior modeling data and in accordance with the fire intensity classifications established by the Colorado Wildfire Resiliency Code. If conditions exist for inclusion within a fire intensity classification within 300' of any parcel, such parcel shall be classified in accordance with those conditions. Only parcels not adjacent to and further than 300' from the established conditions may be removed from a fire intensity classification. Any such determination shall be made based on existing conditions or conditions that have been established by a development plan approved by the local jurisdiction. Technical documentation shall be submitted in support of such request by a qualified wildfire professional and in accordance with Section 15.80.030.

Section 15.80.070 – Structure hardening

Exterior design and construction of new buildings and structures within a designated Wildfire Hazard Area shall be constructed in accordance with this section unless expressly excepted in this Chapter.

- A. Class 1 structure hardening. Class 1 structure hardening shall apply to buildings and structures hereafter constructed, modified or relocated into or within areas of the wildland-urban interface having a low fire hazard severity.
1. Exterior walls, siding, eaves, and projections. Exterior walls, siding, eaves, and projections shall be constructed with a non-combustible material or a Class A rated materials meeting ASTM E84 or UL 723 testing standards for a total test period of 30 minutes. Treated building materials will not be allowed unless the treatment is rated to maintain its Class A rating for the life of the material without reapplication. Heavy timber and log construction is also acceptable.
 2. Decking. The deck surface, step surface and guardrails shall be constructed with a non-combustible material or Class A rated materials meeting ASTM E84 or UL 723 testing standards for a total test period of 30 minutes. Treated building materials will not be allowed unless the treatment is rated to maintain its Class A rating for the life of the material without reapplication. For decks six feet or lower to the ground, the surface below the deck shall be gravel placed over a sheet of six-millimeter plastic or concrete slab to prevent vegetation growth under the deck.
 3. Roofing. Roofs shall have a roof covering or roof assembly classified as Class A when tested in accordance with ASTM E108 or UL 790.
 - a. Flame and ember protection of roofs. For roof assemblies where the roof covering profile creates a space between the roof covering and roof deck, the space shall resist the entry of flames and embers by one or more of the following methods:
 - i. Firestopping with noncombustible material of the space between the roof covering and the roof deck.
 - ii. Installation of one layer of cap sheet complying with ASTM D3909 over the combustible roof deck.
 - iii. Installation of a listed Class A classified roof assembly.
 - b. Roof valley flashings. Valley flashings shall be not less than 0.019 inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide underlayment consisting of one layer of cap sheet complying with ASTM D3909 running the full length of the valley.
 9. Gutters and downspouts. Gutters and downspouts shall be constructed of noncombustible material and have an approved ignition resistant means to prevent accumulation of debris in gutters
 10. Ventilation Openings. Ventilation openings for enclosed attics, enclosed rafter spaces, and underfloor spaces shall be in accordance with Section 403.4.1 or Section 403.4.2 as applicable.
 - a. 403.4.1 Performance Requirements. Ventilation openings shall be fully covered with listed vents, tested in accordance with ASTM E2886, to demonstrate compliance with all the following requirements:
 - a) There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
 - b) There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
 - c) The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

- b. Prescriptive Requirements. Ventilation openings for enclosed attics, enclosed rafter spaces, and underfloor spaces shall be covered with noncombustible 404.3 corrosion-resistant mesh with openings not to exceed 1/8-inch.
- B. Class 2 structure hardening. Class 2 structure hardening shall apply to buildings and structures hereafter constructed, modified or relocated into or within areas of the wildland-urban interface having a medium or high fire hazard severity and must also meet all standards for Class 1 structure hardening.
- 1. Flashing. A minimum of 6 inches of metal flashing or noncombustible material applied vertically between the wall sheathing and the exterior cladding shall be installed at the ground, decking, and roof intersections. Combustible sheathing products exposed by the gap created at the base of the exterior walls, posts, or columns must be protected with noncombustible material or ignition-resistant building materials while still permitting drainage and moisture control from behind exterior cladding.
 - 2. Underfloor enclosures. Buildings or structures shall have underfloor areas enclosed to the ground or comply with exterior walls in accordance with Section 404.3.
 - 3. Exterior Glazing. Exterior windows, window walls and glazed doors, windows within exterior doors, and skylights shall be tempered glass, multilayered glazed panels, glass block or have a fire protection rating of not less than 20 minutes.
 - 4. Exterior Doors. Exterior doors shall be approved noncombustible construction, solid core wood not less than 1 3/4-inches thick, or have a fire protection rating of not less than 20 minutes. Windows within doors and glazed doors shall be in accordance with Subsection A.5.
 - Exception: Vehicle access doors.
 - 5. Vehicle Access Door Perimeter Gap. Exterior vehicle access doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the head, sill, and jamb of doors from exceeding 1/8 inch. Gaps between doors and door openings shall be controlled by one of the following methods:
 - a. Weather-stripping products made of materials that: (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2,000 hours, when the maximum allowable difference in tensile strength values between exposed and non-exposed samples does not exceed 10 percent; and (b) exhibit a V-2 or better flammability rating when tested to UL 94 (Standards for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances).
 - b. Door overlaps onto jambs and headers.
 - c. Garage door jambs and headers covered with metal flashing.
 - 6. Roof valley flashings. Valley flashings shall be not less than 0.019 inch (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36-inch-wide underlayment consisting of one layer of cap sheet complying with ASTM D3909 running the full length of the valley.
 - 7. Detached Accessory Structures. Detached accessory structures located less than 50 feet from a building containing habitable or occupiable space shall have exterior walls constructed in accordance with Subsection A.1. Where the detached structure is located and constructed so that the structure or any portion thereof projects over a

descending slope surface greater than 10 percent, the area below the structure shall have underfloor areas enclosed to within 6 inches of the ground, with exterior wall construction in accordance with Subsection A.1.

Exception: The enclosure shall not be required where the underside of exposed floors and exposed structural columns, beams and supporting walls are protected as required for exterior 1-hour fire-resistance-rated construction, heavy timber construction, noncombustible materials on the exterior side, or fire-retardant-treated wood on the exterior side. The fire-retardant-treated wood shall be labeled for exterior use and meet the requirements of Section 2303.2 of the 2024 International Building Code.

Section 15.80.080 – Site and area requirements.

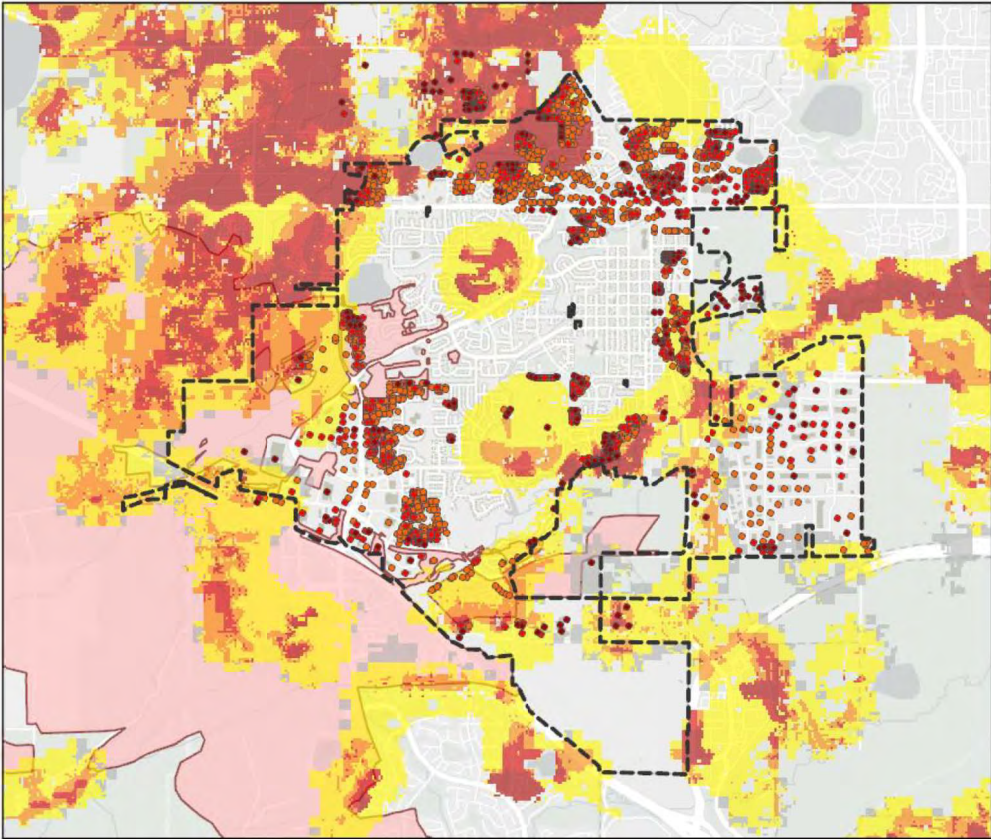
Property within a designated Wildfire Hazard Area shall be constructed and maintained in accordance with this section.

- A. Class 1 site and area requirements. Class 1 site and area requirements shall apply to home ignition zones within areas of the wildland-urban interface having a low fire hazard severity.
 1. Structure Ignition Zone 1 (0-5 feet): Immediate Zone
 - a. Only noncombustible, hard surface ground cover materials, such as rock, gravel, sand, concrete, bare earth, or stone/concrete pavers, shall be allowed.
 - b. No plantings shall be allowed except for ignition resistant plantings identified in the Colorado State Forest Service Ignition-Resistant Landscape Plants publication (Fact Sheet 6.305), as may be amended from time to time. A copy of the Ignition-Resistant Landscape Plants publication shall be maintained by the City and made available to the public.
 - c. Trees, shrubs, and other landscape plantings must be maintained and pruned so as not to encroach into the Immediate Zone.
 - d. Surface fuels such as logs, branches, and slash must be removed.
 2. Retaining Walls. Retaining walls shall be constructed with noncombustible materials when any of the following conditions exist:
 - a. The retaining wall is within 8 feet of a structure regulated by this Chapter or up to the property line when the property line is less than 8 feet away from the structure.
 - b. The retaining wall is integral to the support of a structure regulated by this Chapter.
 - c. The retaining wall is integral to the egress from a structure regulated by this Chapter to a public way, easement, or private road.
 3. Fencing. Fencing within 8 feet of a structure regulated by this Chapter or up to the property line when the property line is less than 8 feet away from the structure shall be constructed with noncombustible materials or a Class A rated materials meeting ASTM E84 or UL 723 testing standards for a total test period of 30 minutes.
 4. Marking of roads. Approved signs or other approved notices shall be provided and maintained for access roads and driveways to identify such roads and prohibit the obstruction thereof.

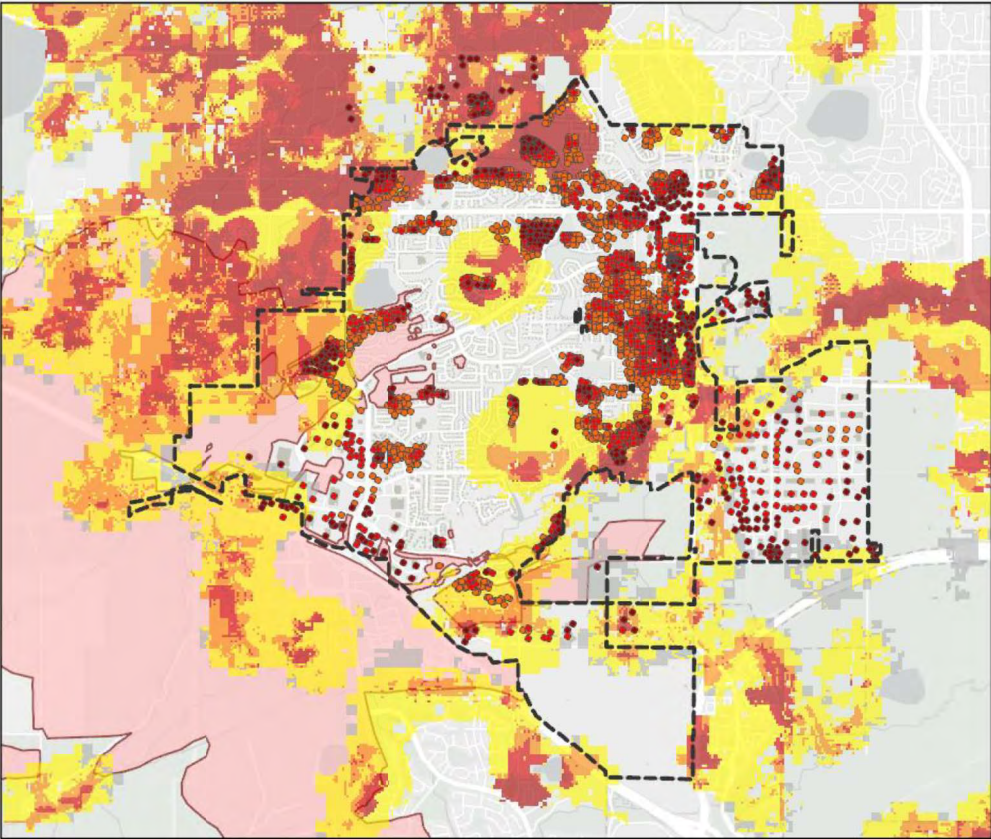
5. Marking of fire protection equipment. Fire protection equipment and fire hydrants shall be clearly identified in a manner approved by the Building Official to prevent obstruction.
 6. Address markers. Buildings shall have a permanently posted address, which shall be placed at each driveway entrance and be visible from both directions of travel along the road. In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter, and the address shall be visible and legible from the road on which the address is located in a manner approved by the Building Official.
- B. Class 2 site and area requirements. Class 2 site and area requirements shall apply to home ignition zones within areas of the wildland-urban interface having a medium or high fire hazard severity and must meet also meet all standards for Class 1 site and area requirements.
1. Structure Ignition Zone 2 (5-30 feet) Intermediate Zone
 - a. Hazardous dead plant material must be removed from live vegetation.
 - b. Surface fuels such as logs, branches, slash and combustible mulch must be removed.
 - c. Tree crowns extending to within 10 feet of any structure shall be pruned to maintain a minimum clearance of 10 feet.
 - d. Tree branches must be pruned to a height of 6-10 feet from the ground or a third of the total height of the tree, whichever is less.
 - e. Shrubs shall be at least 10 feet away from the edge of tree branches.
 2. Structure Ignition Zone 3 (30-100 feet) Expanded Zone
 - a. Tree crowns within this zone shall be spaced at a minimum of 10 feet apart.

Structure Vulnerability & Wildland Urban Interface Risk

Baseline Conditions - Winds from the North (45mph)



Baseline Conditions - Winds from the West (45 mph)



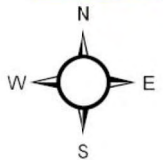
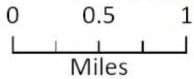
Structure Vulnerability Index

- 0.7 - 0.79
- 0.8 - 0.89
- 0.9 - 1.00

- Marshall Fire Burn Perimeter
- Louisville Buildings
- City Limits

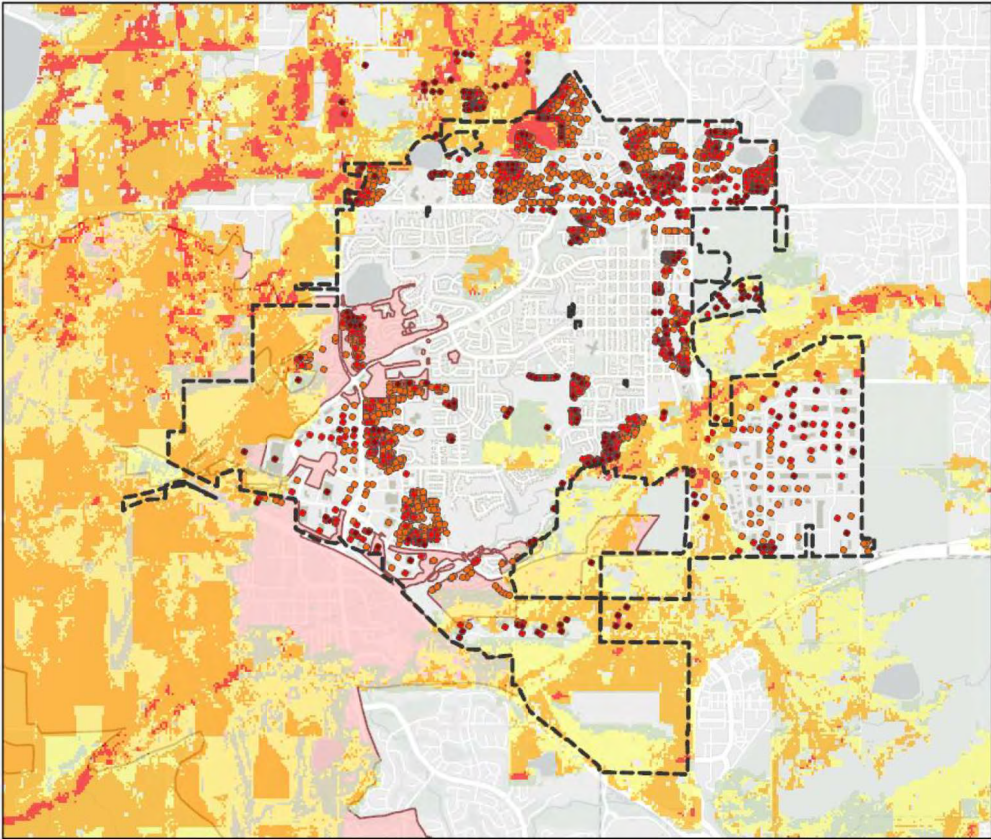
Wildland Urban Interface Risk

- Highest Risk (5)
- High Risk (3.69)
- Moderate Risk (2.8)
- Low Risk (1.9)
- Lowest Risk (1)

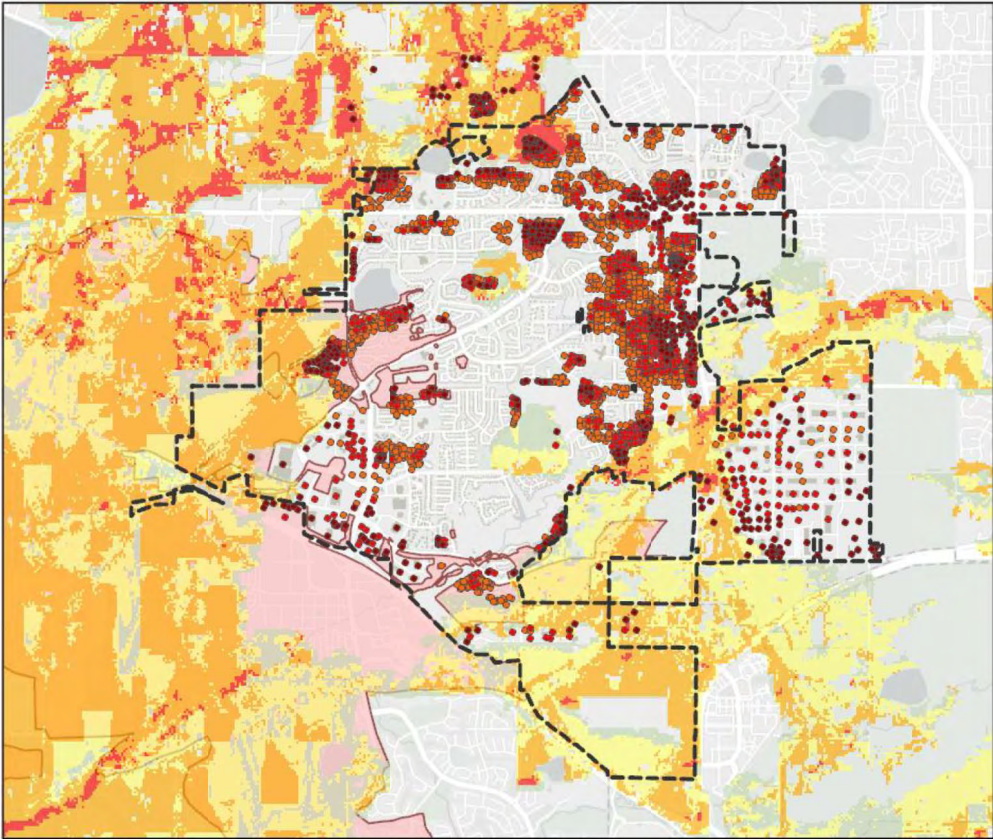


Structure Vulnerability & Fire Intensity

Baseline Conditions - Winds from the North (45mph)



Baseline Conditions - Winds from the West (45 mph)



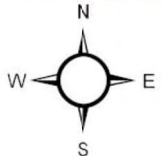
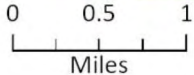
Structure Vulnerability Index

- 0.7 - 0.79
- 0.8 - 0.89
- 0.9 - 1.00

- Marshall Fire Burn Perimeter
- Louisville Buildings
- City Limits

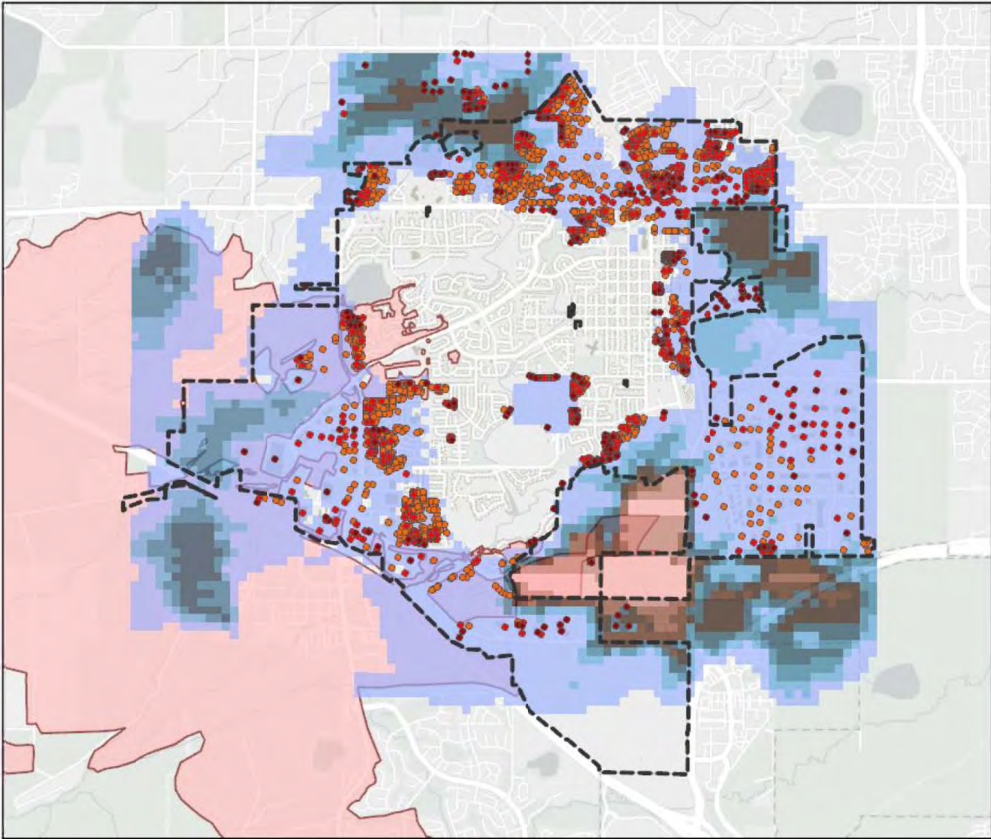
Fire Intensity Scale

- Lowest Intensity (>1)
- Low Intensity (1 - 2)
- Moderate Intensity (2 - 3)
- High Intensity (3 - 4)

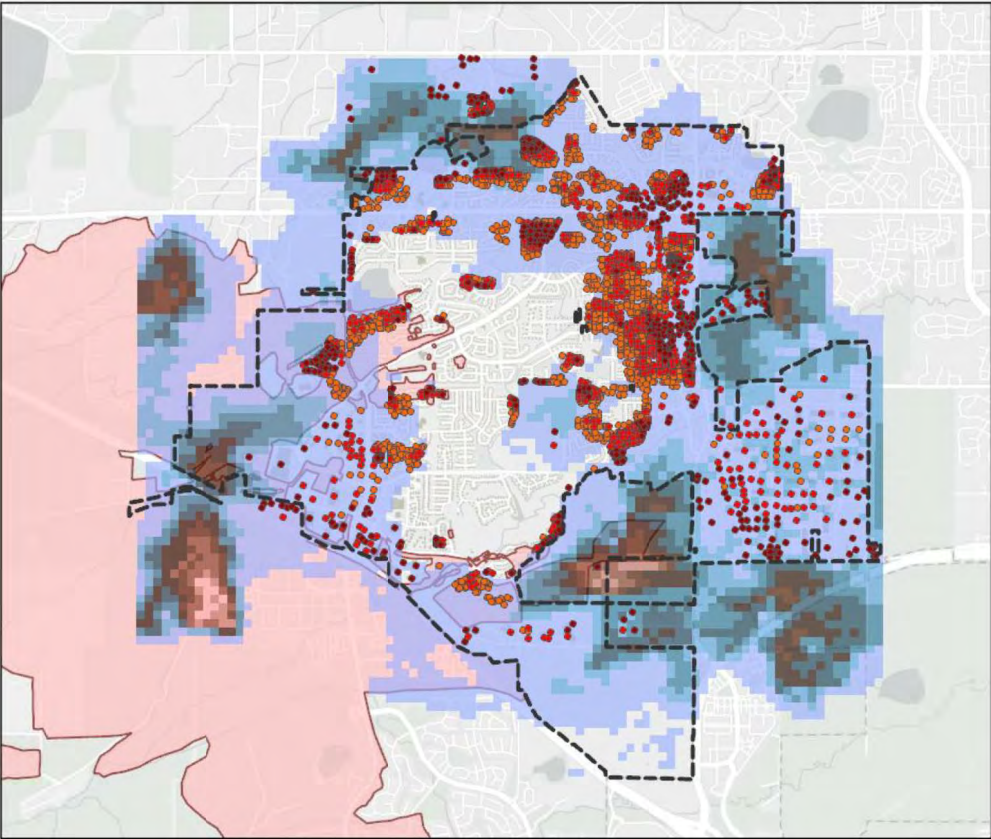


Structure Vulnerability & Most Probable Path (MPP)

Baseline Conditions - Winds from the North (45mph)



Baseline Conditions - Winds from the West (45 mph)



Structure Vulnerability Index

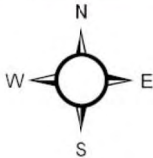
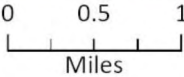
- 0.7 - 0.79
- 0.8 - 0.89
- 0.9 - 1.00

- Marshall Fire Burn Perimeter
- Louisville Buildings
- City Limits

MPP - probability (%)

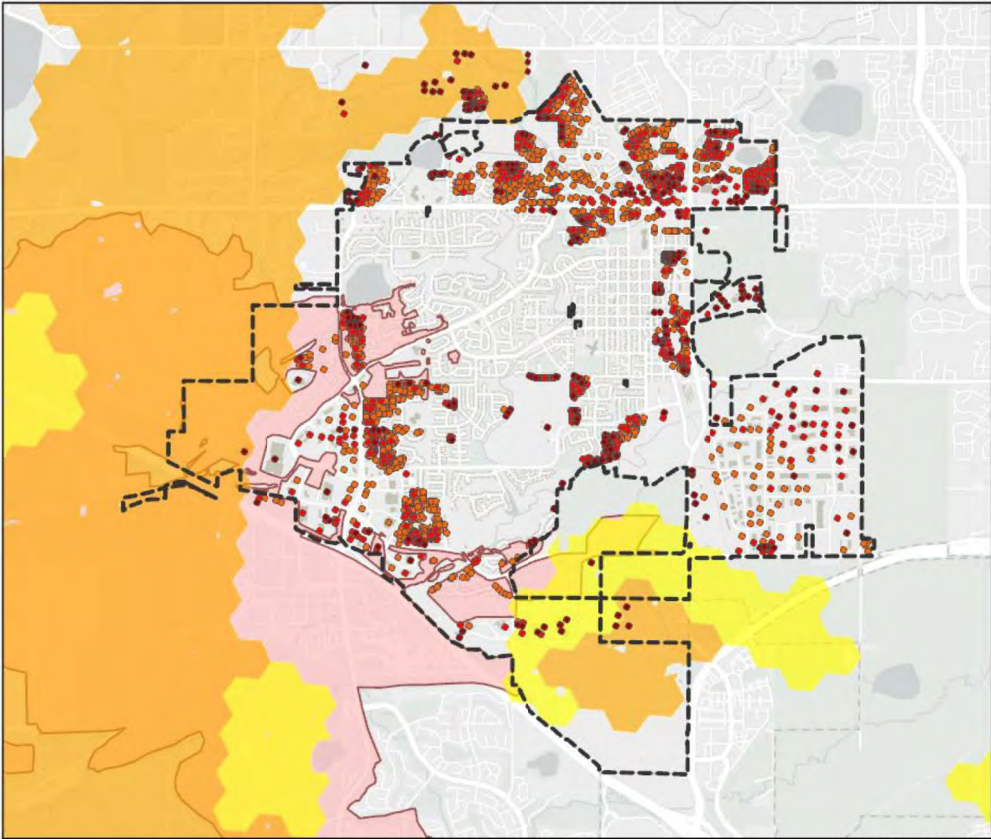
- ≤ 0.05
- $>0.05 - 0.2$
- $>0.2 - 0.3$
- $>0.3 - 0.4$

- $>0.4 - 0.5$
- $>0.5 - 0.6$
- $>0.6 - 0.7$
- $>0.7 - 0.8$
- $>0.8 - 0.9$
- $>0.9 - 1$



Structure Vulnerability & Wildfire Resilience Code

Baseline Conditions - Winds from the North (45mph)



Structure Vulnerability Index

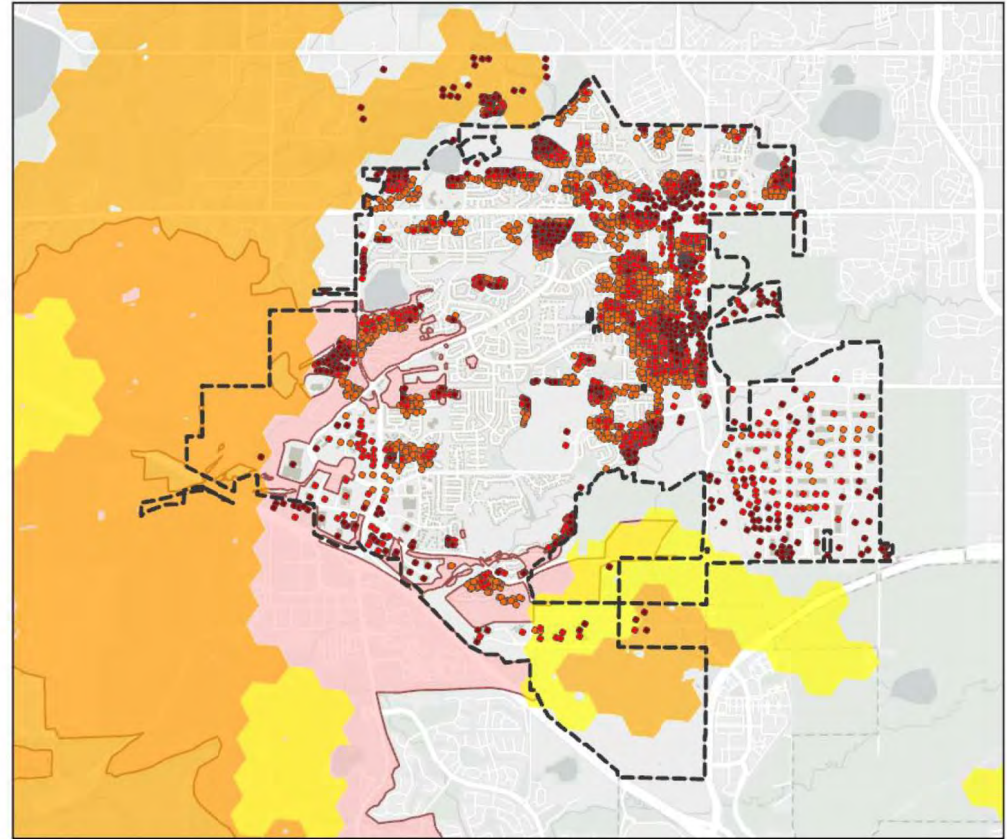
- 0.7 - 0.79
- 0.8 - 0.89
- 0.9 - 1.00

- Marshall Fire Burn Perimeter
- Louisville Buildings
- City Limits

Fire Intensity Classification

- High Intensity Non-Federal
- High Intensity Federal
- Moderate Intensity Non-Federal

Baseline Conditions - Winds from the West (45 mph)



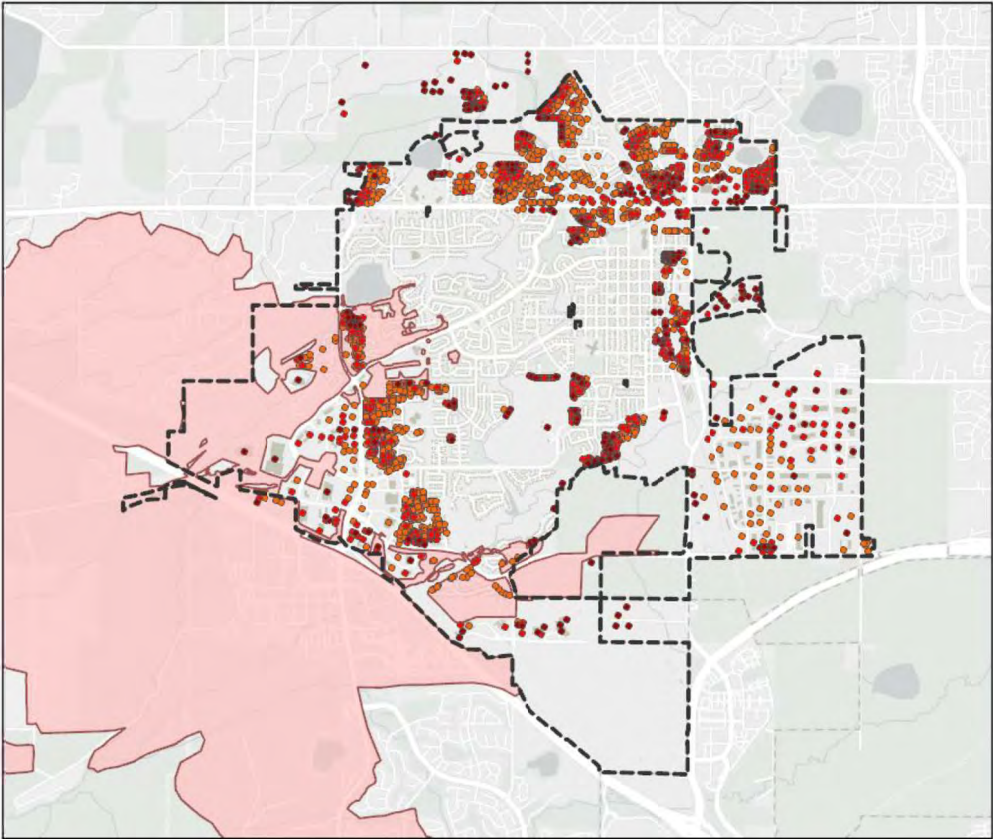
- Moderate Intensity Federal
- Low Intensity Non-Federal
- Low Intensity Federal

0 0.5 1
Miles



Structure Vulnerability & Marshall Fire Burn Perimeter

Baseline Conditions - Winds from the North (45mph)



Structure Vulnerability Index

- 0.7 - 0.79
- 0.8 - 0.89
- 0.9 - 1.00

- Marshall Fire Burn Perimeter
- Louisville Buildings
- City Limits

Baseline Conditions - Winds from the West (45 mph)

