



STAFF REPORT

Community Development

To: City Council
From: Jeff Brasel, Director of Community Development
Subject: Residential Fire Sprinkler Requirements
Date: July 14th, 2025

1 Executive Summary

In May of 2023, Council approved Ordinance 2480, adopting the 2021 International Residential Code (IRC), with revisions. The approval included requirements for home builders to install automatic fire suppression systems in all new townhomes (non-stacked multi-unit homes including duplexes) and detached single-unit homes. The requirements became effective in November of 2023.

In February of 2025, City Council hosted a developer roundtable to receive feedback from the development community on challenges they are experiencing with development in the community. One of the challenges brought up was the cost of doing business. One of the topic areas was the overall cost of development and part of the topic discussion included increased costs associated with residential fire suppression requirements. In April of 2025, Council directed staff to organize a June study session providing a brief overview of fire suppression systems required in the northern range and their impacts on future amenities.

This staff report contains background information on the fire sprinkler requirements, an overview of fire suppression systems required in the northern front range, outreach information, and potential options for Council to consider.

2 Background Information

Ordinance 2480 (see **Attachment 1** to this report) includes the following requirements addressing **internal** fire suppression:

- Automatic fire suppression (sprinkler) systems are required for new townhouses and new detached single-unit dwellings – sprinklers were already required for stacked, multi-unit dwellings and many commercial structures.

The following amendments addressed **external** fire prevention:

- New detached single-unit dwellings with an exterior wall distance to a property line of eight feet or more are exempt from sprinkler system requirements; and

- Exterior wall coverings on new dwellings are required to have limited combustibility.

Fire sprinkler systems in residential structures have been proven effective in several national tests. With adoption of Ordinance 2480, Council received several reports including a statistical analysis from Brittney Brown, Fire Marshall for the South Adams County Fire Department (SACFD), see **Attachment 2** to this report.

3 Jurisdictional Comparisons

With the adoption of Ordinance 2480, Commerce City joined several northern Front Range communities requiring residential sprinkler systems for townhouses and/or detached single-unit dwellings, including Adams County, Boulder County, Boulder, Broomfield, Castle Pines, Centennial, Cherry Hills Village, Edgewater, Erie, Federal Heights, Fort Collins, Golden, Greenwood Village, Lone Tree, Louisville, Superior, and Westminster. Many of these communities have different stipulations and conditions for when residential sprinkler systems are required. The following summary table compares northern Front Range communities that have adopted some form of residential sprinkler requirements.

Table 1 – Comparison of Automatic Fire Suppression System Requirements in the Northern Range

	Applicability	Conditions	Adoption
Adams County	New townhomes and detached single-unit dwellings (Occupancy Group R-3)	Exempt if: Fire area is less than 3,600 square feet; Dwelling is within 1,000 feet of an approved hydrant; and Dwelling is on an approved fire access road	2019
Boulder County	New townhomes and detached single-unit dwellings	Applies to additions and remodels exceeding 4,800 square feet	1995
Boulder	New one- and two-unit dwellings and new accessory dwelling units	Does not apply to additions or alterations. Tiny houses exempt	2020
Broomfield	New townhouses and detached single-unit dwellings	Exemptions: Lots and homes with approved tap and meter pit installed without adequate capacity. Accessory Dwelling Units	2023
Castle Pines		Builders required to offer systems to detached single-unit and duplex purchasers, installed at the purchaser's cost	2013
Centennial		Builders required to offer systems to detached single-unit and duplex purchasers, installed at the purchaser's cost	2023
Cherry Hills Village	New townhomes and detached single-unit dwellings	Includes accessory dwelling units. Alterations to existing homes where over ten percent of the above-grade square footage remains are exempt.	2023
Commerce City	New townhomes and detached single-unit dwellings	Exempts detached single-unit dwellings that are eight feet or more from the nearest property line	2023

Table 1 – Comparison of Automatic Fire Suppression System Requirements in the Northern Range (continued)

	Applicability	Conditions	Adoption
Edgewater	New townhomes and detached single-unit dwellings	New detached single-unit dwellings 8,500 square feet or less are exempt	2023
Erie	New townhomes and detached single-unit dwellings		2023
Federal Heights	New townhomes and detached single-unit dwellings		2023
Fort Collins	New townhomes and short-term rentals	Detached single-unit dwellings exempt	2022
Golden	New townhomes and detached single-unit dwellings		2019
Greenwood Village	New townhomes and detached single-unit dwellings	Dwelling units 7,700 square feet or less are exempt	2011
Lafayette	Single-Family, Duplex, and Townhomes	Existing residential and ADUs with an existing tap that is insufficient to support a system.	2023
Lone Tree		Builders required to offer systems to detached single-unit and duplex purchasers, installed at the purchaser's cost	2011
Louisville	Repealed requirements for new townhomes and detached single-unit dwellings	Replaced with exterior fire-hardening requirements	2024
Superior	New townhomes and detached single-unit dwellings	Opt-out for Marshall Fire rebuilds	2022
Westminster	New townhomes and detached single-unit dwellings	Not required for additions or alterations to existing buildings	2012

The International Code Council (ICC) first adopted fire sprinklers for residential townhomes and single-unit dwellings in 2009. As shown in the table, there has been a significant increase in the number of northern Front Range communities adopting the ICC standard in the past three years. Only one community, Louisville, has repealed their requirements for automatic fire suppression systems. The most common exemptions are for smaller dwelling units. Commerce City is unique in its exemption for homes that are setback eight feet or more from the nearest property line.

4 Outreach

In preparation for the study session, staff organized a survey and held two “listening sessions” on June 5 and June 6, 2025. Staff sent the survey and invitations to all active townhome and single-unit residential builders in Commerce City as well as the Home Builders Association (HBA),

builders who participated in the February 27, 2025 meeting with Council, the South Adams County Water and Sanitary District (SACWSD), and the South Adams County Fire District (SACFD). The HBA publicized the listening sessions separately and gathered participation from fire suppression system installers. In all, 13 individuals representing nine home builders, six individuals representing three installers, one representative from the HBA, and four staff members representing SACWSD and SACFD attended the meetings. In addition, four on-line surveys were completed. The following is a summary of the information gathered from the sessions and surveys.

Builders reported that their average price to install a residential fire sprinkler system is between \$9,000 and \$14,000 and the average cost to the new homeowner is between \$16,000 and \$17,000. The average home price reported by the builders was approximately \$575,000. The HBA reports that the average home price in Commerce City is currently \$719,597. Related to costs, the builders had the following concerns:

- Developers need cost predictability within the investor cycle. If the proforma metrics are broken by city-implemented increases, the investors lose trust in the city and may stop current or future projects;
- Additional costs make it more difficult to find qualified buyers.

There was spirited debate about these points. Some participants noted that all development costs are rising. More significant affordability issues may come from land costs and metropolitan district fees. Market conditions in the northern Front Range are changing and getting more challenging than they were previously.

When Council adopted Ordinance 2480, the requirements became effective six months from adoption. Builders reported fundamental concerns with the adoption process and implementation of the fire sprinkler requirements in Commerce City. According to the builders:

- Adoption of the ordinance seemed to be rushed, and adopted amendments were not well thought through;
- There was no consideration given for approved and existing developments that had already installed utilities;
- Builders had to shut down operations for six-to-eight months to redesign approved models and get them reapproved by the city; and
- The goal of the ordinance seems unclear. If the goal is to prevent fires spreading from one structure to another, the city may be able to address the issue without fire sprinklers, alleviating pressures on the water system and reducing costs.

Regarding inspections and installation of systems, the builders reported that house inspections seem to be going well, although there were incidences of inspectors requiring changes after customers have moved in. There were several installation and inspection issues discussed by the builders:

- SACWSD is the only agency requiring both passive purge systems and a backflow preventer, all other agencies are “either or;”
- Fire-flow pressure testing and bucket testing of water lines is highly variable and may change based on the day or time of the test;
- SACFD requires pressure testing within the subdivision before construction may begin, causing a two-month delay in construction

For the survey, all four participants reported difficulties with water pressure, sales and marketing of homes equipped with fire sprinklers, and costs (see **Attachment 3** to this report).

The HBA provided a letter requesting Council to repeal Commerce City’s requirements for residential fire sprinkler systems. The letter includes attachments showing a development cost comparison of Commerce City with other area municipalities, an estimate for sprinkler system installation in a home, and an estimate for the cost of redesign and plan revisions (see **Attachment 4** to this report). While the cost estimates for installation, redesign, and plan revision are taken at face value, staff has not verified information presented in the HBA letter and development cost comparison.

5 Options for Consideration

No formal actions may be taken at study sessions. However, there are three basic options for Council to consider regarding residential fire sprinkler requirements:

1. Keep the requirements as they are for now;
2. Make modifications to the requirements; or
3. Repeal the requirements.

Option two or three will require additional work through study sessions, research, more extensive outreach, and public hearings. Staff prepared possible advantages and disadvantages for each option for Council consideration.

5.1 Keeping the Requirements

There are lessons that may be learned from the adoption and implementation of Ordinance 2480; first among them being the need for proactive engagement with the development community for the implementation process. Commerce City and its development community may have benefited from separating implementation of sprinkler requirements for individual permits from master models and approved subdivisions in the process of building out, creating a smoother transition process. Partner agencies SACWSD and SACFD have done great work implementing the ordinance and provided training, installation advice, and price discounts for necessary conversions.

Advantages

Predictability is a key component of successful development projects. Changes to the adopted requirements at this point may have the unintended consequence of reintroducing unpredictability to the development review process. In staff's opinion, adoption of residential fire sprinklers is beneficial step in a multi-faceted, nation-wide effort to improve building and life safety through the ICC with robust participation from builders, building officials, and fire safety officials.

Disadvantages

Fire sprinkler systems add incremental costs to new home construction which are partially transferred to home buyers, adding stresses to development financing and home purchases. For builders, having different requirements and exemptions among different municipalities within the same metropolitan area creates perceptions of inequities and competitive disadvantages.

5.2 Potential Modifications

Through the engagement process, staff identified four potential categories for modifications to the requirements are possible:

- Adding sprinkler requirements for major home additions / renovations;
- Removing the eight-foot exemption;
- Making fire sprinklers optional in new homes; and
- Revising implementation to exempt pre-approved development projects.

If Council is interested in modifying the requirements, any one of these categorical options will require additional study, research and engagement. There may be other possible modifications that were not identified in the engagement process thus far. Regardless of whether Council elects to keep the existing requirements or modify them in some way, staff will continue to explore ways to improve processing efficiencies and work with partner agencies on possible process improvements.

Advantages

Modifications have the potential to either redirect the purpose of the ordinance or provide additional support for the original purpose. Modifications are an adaptive way to respond to changing conditions or to address gaps in implementation.

Disadvantages

Townhome and detached single-unit residential fire sprinkler requirements have been in effect for almost 20 months. ICC adoptions occur on a three-year schedule. Significant modifications should be deliberative and allow for complete implementation and thorough evaluation of the original ordinance.

5.3 Repealing the Requirements

The HBA and several home builders have requested that Council repeal the fire sprinkler requirements adopted by Ordinance 2480. The ICC and SACFD are supportive of the adopted fire

sprinkler requirements. Repealing the requirements would mean that new townhomes and detached single-unit homes would no longer require internal automatic fire suppression systems.

Advantages

Repealing the requirements would address one of the requests made by several home builders and the HBA. No longer having to install fire sprinkler systems, those builders would realize some savings, and these may contribute to improving the cost of constructing homes in Commerce City or provide a competitive advantage to building homes in Commerce City versus municipalities who do not require fire sprinkler systems.

Disadvantages

The ICC is a collaborative organization that looks at the long-term issues affecting community development and building safety and efficiency. Over time, adoption of ICC standards offers a progression of best practices in building standards. The ICC adopted fire sprinkler requirements in 2009 and jurisdictions across the country are gradually adopting the fire sprinkler requirements. Repealing the requirements may be seen as a step away from home and life safety.

Market conditions are intricate and complex. It is uncertain that repealing fire sprinkler requirements would have the intended effect of improving the overall environment of home building in Commerce City.

6 Next Steps

Next steps will be determined by the Council's direction provided at the study session.

Attachments

- 1 Ordinance 2480, 37 pages
- 2 SACFD statistical analysis, eight pages
- 3 On-Line Survey Results, four pages
- 4 HBA Letter, nine pages