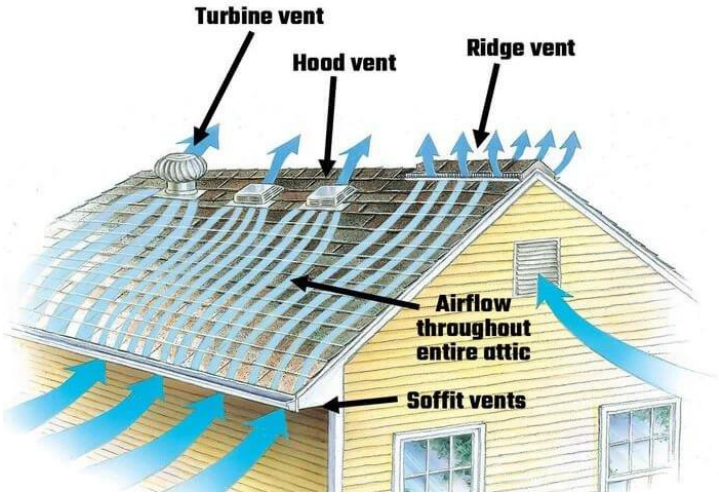
2024 Firefighter Safety Standdown Training Content

Day 2: Back to Basics, Outside-To-In-Fires

Exterior fires that extend from the outside to the interior of structures present unique challenges for firefighters, often originating from sources such as attached rear decks, mulch beds, or basement fires that extend upward. In Northern Virginia, these are known as Outside-To-In-Fires, and many of our working fires originate as this type. A defining characteristic of these fires is their ability to run along the siding, penetrating upper floors and ultimately the attic through the eaves. To effectively combat these fires and prevent further extension, a critical initial tactic necessitates fighting them from the outside before engaging in interior operations. This approach requires the rapid placement of at least two hose lines to address both the exterior fire and the upward fire extension within the structure.

Let's explore the essential tactics, techniques, and case studies to better understand the necessary skills to mitigate outside-to-in fires and protect lives and property.

Tactical Approach: As noted in the Single-Family Dwelling Manual, to effectively combat outside-to-in-fires and prevent their migration into buildings, it is imperative to initiate firefighting from the exterior. This approach serves to control the fire's spread to adjacent structures and mitigate its penetration into upper floors and the attic space.



Sweeping the Eaves and Soffit Attacks: Eaves, common features of single-family dwellings, are vulnerable points where exterior fires can extend into attics. Enclosed eaves, particularly those with lightweight materials such as vinyl or sheet metal soffits, accelerate fire extension. However, exterior fire-stream application directed at the underside of the soffit can prevent fire from penetrating into the attic.

Utilizing UL's Study Findings: UL's study emphasizes the critical role of rapid water application in controlling outside-to-in-fires. Firefighters can prevent or slow upward fire extension by sweeping the eaves with hose streams parallel to the exterior wall. Additionally, directing water into the attic through the soffit upon arrival can rapidly knock down attic fires from the exterior.

Effective Techniques: To conduct a soffit attack, firefighters may need to remove sections of the soffit to ensure unimpeded water flow. Using a 2 ½" smooth-bore nozzle matched with the roof's pitch allows for effective reach and penetration from the structure's exterior.

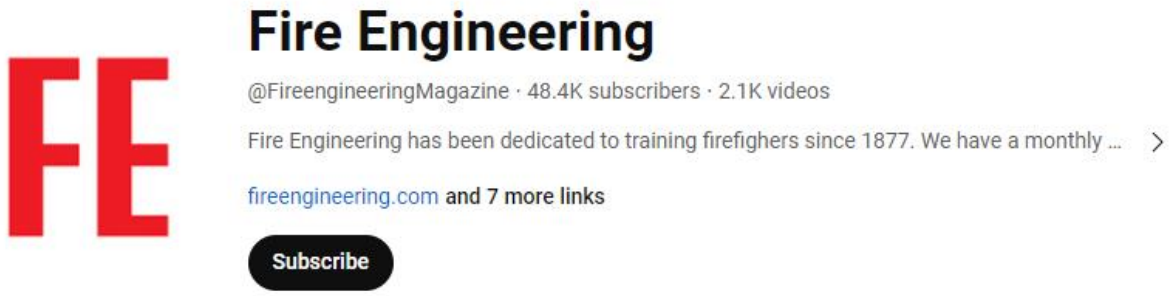
Case Studies: The following incidents, all within proximity to Fairfax County, illustrate instances where failure to address exterior fires resulted in injury or death to firefighters operating inside structures.

Learning from these cases underscores the importance of proactive exterior fire mitigation tactics before entering the structure to complete extinguishment.

- Loudoun County Meadowood Court Fire After Action Video
- Four DCFEMS Firefighters Injured While Providing Interior Exposure Protection
- Kyle Wilson LODD Report

Conclusion: By recognizing outside-to-in-fires and implementing appropriate initial tactics, such as first attacking the exterior fire while sweeping the eaves with a soffit attack, and directing subsequent lines to the interior, firefighters can enhance their effectiveness in controlling these fires while protecting lives and property.

Please review this hour long discussion about Outside-to-in-fires.



"Outside-in" Fires (youtube.com)