



In-Station Training

TM 23-23 Mobile Home Fire



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Purpose

Mobile and manufactured homes are constructed on a metal frame with axles to allow transportation to the home site. Wood framing is much lighter than typical stick built (or modular) homes. Understanding mobile and manufactured home construction and design is essential to safe and effective firefighting operations in this type of building.

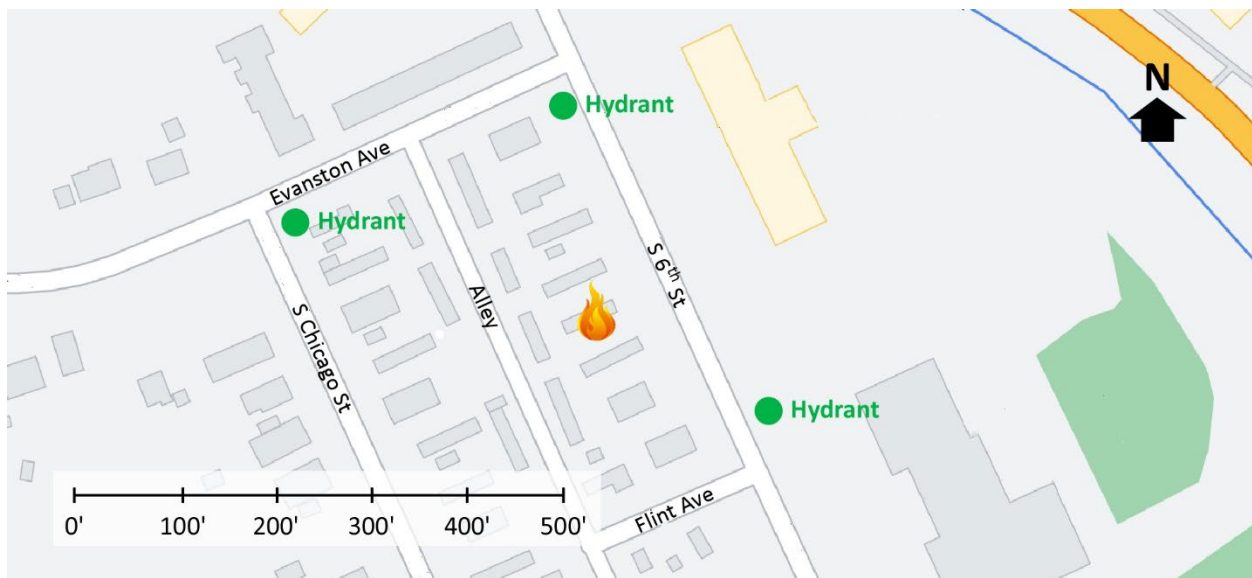
Learning Outcomes

Firefighters and officers perform an effective size-up; select an appropriate strategy, and implement tactics based on the strategic decision-making model.

Conducting the Drill

This incident involved a fire at 750 S 6th Street, Hot Springs, SD (Lukins, 2023a, 2023b, 2023c, 2023d). Review the map and photos (Figures 1-5) to gain an understanding of the area and building involved.

Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [map, 750 S 6th Street, Hot Springs, SD]. <https://bit.ly/432BHG9>.

The closest hydrant is located to the south southwest of the incident location on South 6th Street and several other hydrants are in the area as illustrated in Figure 1. In this 10-Minute Training, the

illustrations are labeled with Side Alpha being the street. Alternatively, you may choose to identify the southeast side of the mobile home (main entry side) as Side Alpha.

Figure 2. Aerial View



Note: Adapted from Google. (2023b). [aerial view, 750 S 6th Street, Hot Springs, SD].
<https://bit.ly/3MRvENR>.

Figure 3. Alpha/Delta Corner



Note: Adapted from Google. (2012). [street view, 750 S 6th Street, Hot Springs, SD].
<https://bit.ly/3MXIijx>.

Figure 4. Side Alpha



Note: Adapted from Google. (2021a). [street view, 750 S 6th Street, Hot Springs, SD].
<https://bit.ly/45sJKxt>.

Figure 5. Alpha/Bravo Corner



Note: Adapted from Google. (2021b). [street view, 750 S 6th Street, Hot Springs, SD].
<https://bit.ly/3q17E2M>.

You have been dispatched to 750 S 6th Street for a residential fire at 10:00. You are the company officer or AIC of the first arriving engine and have your company's typical staffing. The temperature is 70° F with no appreciable wind.

1. What critical factors would you consider when dispatched and during response and what conversations would you have with your crew while responding?

While responding you hear a command officer, another engine and advanced life support ambulance with typical staffing for your agency go enroute. Dispatch provides an update reporting multiple calls for a fire in a mobile home. The second engine and ALS ambulance will arrive approximately eight minutes after you followed by the command officer. All other units dispatched on the first alarm will arrive after the command officer. You are arriving from the northwest on South 6th Street.

Watch the first 00:30 [incident video](#) (Lukens, 2023) and examine Figure 6 illustrating conditions on arrival.

Figure 6. Conditions on Arrival



Note: Adapted from Lukins, B. (2023b). *800 block S. 6th trailer fire 2 of 4* [video]. <https://bit.ly/3BVPh1T>.

2. State your initial radio report (IRR) exactly as you would transmit it to dispatch.

3. What specific actions would you take (as the company officer) immediately upon arrival and exiting the apparatus and what task orders you would give your crew?

Law enforcement officers report that bystanders stated they don't know if the occupant is home. The mobile home is smoke logged and there is a small amount of smoke pushing with low velocity from uninvolved areas.

4. Would you change the action you are taking or modify the assignments given to your crew? If so, what task orders would you provide?
5. State your update report exactly as you would transmit it to dispatch.
6. State the tactical assignment you would give the next arriving engine exactly as you would transmit it.
7. Based on the anticipated effectiveness of your tactical operations, state your conditions, actions, and needs (CAN) report that would you provide to the first arriving command officer as part of command transfer to IC #2?
8. Did you recognize the potential hazard presented by the downed power line on the Alpha/Bravo corner of the mobile home? How did you communicate this information and what action did you take to mitigate the risk to operating companies?

Consider the following excerpt from 10-Minute Training 23-00 before watching additional segments of incident video and answering the following questions.

Some of the video used in 10-Minute Trainings shows less than ideal emergency operations. Remember that no firefighter or fire officer goes to an incident wanting to do a poor job. There are many factors that may influence incident operations and video or a still photograph seldom, if ever provide the entire story. Keep in mind that video or photos of real incidents are used to provide a learning context (Hartin, 2023).

Watch the [incident video](#) (Lukens, 2023) from 00:30 to 04:30 before answering the following questions.

9. The first arriving company had limited staffing and was assisted by bystanders but took an extended time to get water on the fire and the initial application of water was ineffective. How could the two personnel on this company have achieved effective water on the fire?

10. The second arriving company stretched a second line from their own apparatus and operated on the Alpha/Delta corner of the mobile home. Was this line effective? Why or why not? How could the limited staffing on the first two apparatus have been used more effectively?

Additional Learning: Prior to changes in the Federal Department of Housing and Urban Development (HUD) standards for manufactured homes, the fire fatality rate in this type of dwelling unit was significantly higher than in stick-built homes. In homes manufactured since 1976, the fatality rate is like other single-family dwellings (Hall, 2013).

Fire service building construction training often provides a good understanding of Type V Wood Frame Construction used in stick built and modular homes, but generally does not examine the differences between this type of construction and that used in early vintage mobile homes and more modern manufactured homes constructed to the Housing and Urban Development Manufactured Home Construction and Safety Standards.

Mobile homes and manufactured homes were distinguished from one another in 1974 with the *National Mobile Home Construction and Safety Act* (Public Law 98-383). This act was followed in 1976 by the HUD *Manufactured Home Construction and Safety Standards* (24 CFR 3280. Before 1976, there wasn't a lot of

oversight when it came to the building standards and materials. The structure of these early mobile homes looked a lot like a camper or trailer, with an exposed trailer coupler and wheels to make the home movable. The home itself was generally built on steel I-beams that ran from end-to-end, and could be set up on concrete blocks, wooden blocks, metal stands or a concrete foundation at the desired location.

After the HUD Code was created in the 1970s, the *Housing and Community Development Act of 1980* (Public Law 96-399) later mandated the term manufactured to be used in place of mobile in all federal laws and literature that referenced homes built after 1976. Modern single, double, and triple wide manufactured homes are extremely different from mobile homes built prior to 1976. Manufactured homes are constructed according to the HUD Code. Modern manufactured homes can be placed on a pier and beam foundation (allowing it to be relocated) or it can be placed on a permanent foundation providing a crawl space or basement. However, due to their construction, manufactured homes are limited to a single story.

Like manufactured homes, modular homes are constructed inside building facilities and then transported to the home site. The main difference between manufactured and modular homes is that manufactured homes are built to the HUD code, while modular homes are built to all applicable state and local building codes. Modular homes have similar construction to stick built houses and can be single or multi-story.

Watch the following three videos examining renovation to gain an improved understanding of the construction methods used in older mobile (manufactured) homes.

- Watch This Before You Renovate a Mobile Home - Weight and Structure (DIYfferent, 2023a)
- Watch this Before you Renovate a Mobile Home - Ceiling, Attic, and Roof (DIYfferent, 2023b)
- Gutting it Down to the Studs - 1984 Mobile Home Rot and Mold Found (DIYfferent, 2023c)

For an overview of construction methods used in more modern manufactured homes, watch the [Palm Harbor Homes Austin Factory Tour 2014](#) (Palm Harbor, 2014) video

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