



# In-Station Training

## TM 24-06a Residential Basement Fire



### Author

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### Purpose

If the plan of attack for a basement fire is to enter the structure and attack the fire by advancing down an interior stairwell, firefighters would be exposed to the thermal conditions at the top of stairwell. These conditions can be untenable. If possible, the initial attack on a basement fire should be from the exterior at the level of the fire (Madrzykowski & Weinschenk, 2028 & UL FSRI, 2019) . However, sometimes this presents a challenge.

### Learning Outcomes

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

### Conducting the Drill

This incident involved a residential basement fire at 32 Pine Hill Avenue in Norwalk, Connecticut, on December 25, 2023, at 08:55 (TheCtjake, 2023 & Chumney & Schott, 2023). Review the map and photos (Figures 1-6) to gain an understanding of the area and building involved.

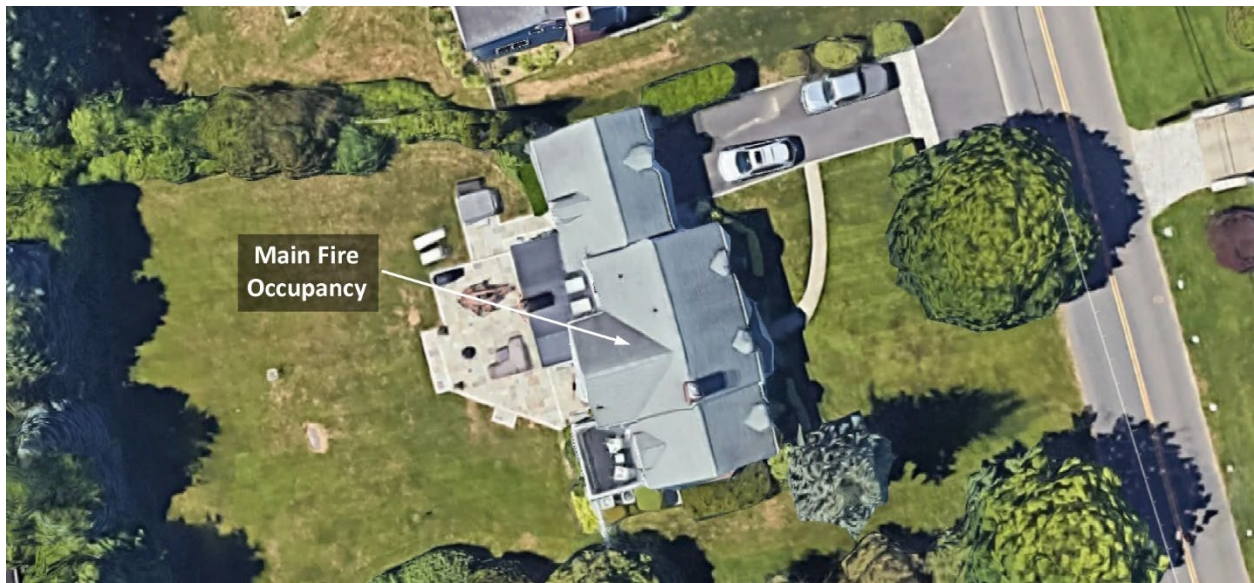
Figure 1. Map of the Incident Area



Note: Adapted from Google. (2023a). [Map, 32 Pine Hill Avenue, Norwalk, CT]. <https://bit.ly/3vtKd4W>.

There are hydrants on Pine Hill Avenue on either side of the incident as illustrated in Figure 1.

Figure 2. Aerial View



*Note:* Adapted from Google. (2023b). [Aerial view 32 Pine Hill Avenue, Norwalk, CT].  
<https://bit.ly/3vu0y9O>.

Figure 3. Side Alpha



*Note:* Adapted from Google. (2015a). [Street view 32 Pine Hill Avenue, Norwalk, CT].  
<https://bit.ly/3vxxBKk>.



Figure 4. Side Alpha



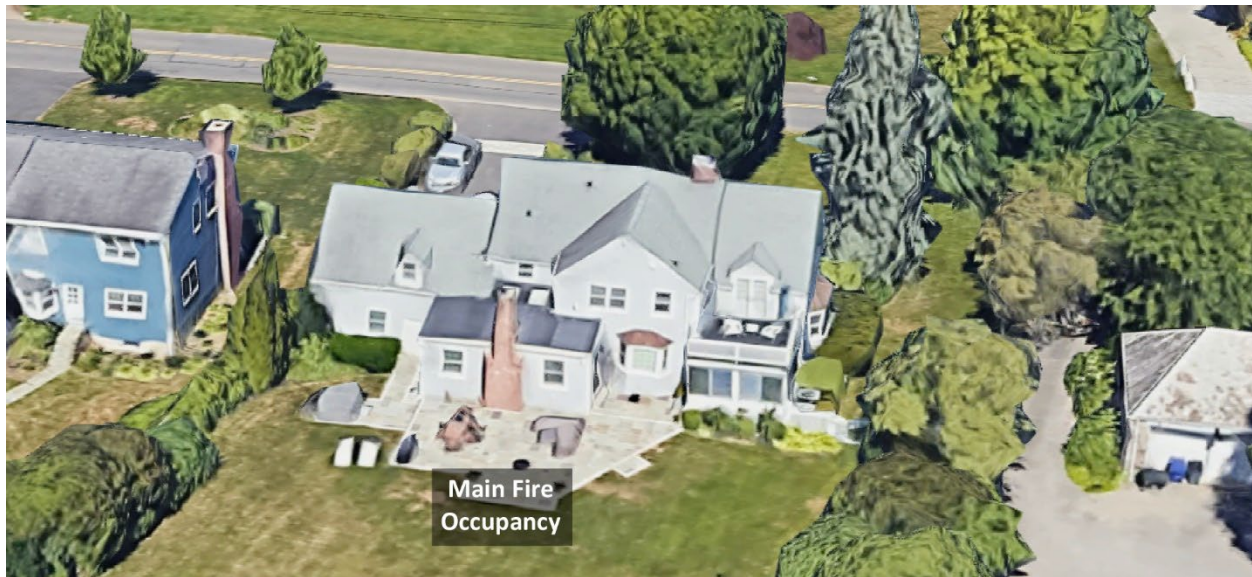
*Note:* Adapted from Google. (2015b). [Street view 32 Pine Hill Avenue, Norwalk, CT].  
<https://bit.ly/3vwCDXI>.

Figure 5. Alpha/Bravo Corner



*Note:* Adapted from Google. (2015c). [Street view 32 Pine Hill Avenue, Norwalk, CT].  
<https://bit.ly/48J8iqK>.

Figure 6. Side Charlie



Note: Adapted from Google. (2023c). [3d aerial view 32 Pine Hill Avenue, Norwalk, CT].  
<https://bit.ly/48JpVCQ>.

You have been dispatched to 32 Pine Hill Avenue for a residential fire at 02:09. You are responding to this incident as the first arriving command officer. Temperature is 43° F with wind from the east northeast at 3 mph (Weather Underground, 2023). While responding you hear four engines, an advanced life support (ALS) ambulance, and a second command officer go enroute. The engines have staffing typical of your agency.

While enroute, dispatch provides an update that the caller reports a fire in the basement at this address. The first engine will arrive from the north on Pine Hill Avenue. The second engine and ALS ambulance will arrive from the same direction approximately three minutes after the first. Make a note of your resource and staffing assumptions prior to continuing with this 10-Minute Training. **You will arrive from the south on Pine Hill Avenue after the second company.** Additional resources on the first alarm (based on your response plan) will arrive later in the incident.

1. What critical factors would you consider when dispatched and during response?

As you were responding Engine 1 provided the following initial radio report:

*On-scene of a small two-story house with a working fire, smoke from all sides. Stretching an attack line on Side Alpha for fire control, in the offensive strategy, give me two additional engines with Level two staging on Pine Hill Ave at Sycamore Street, establishing Pine Command.*

Sunset Command provides the following update report:



*360 complete, two stories on Side Charlie, occupants report a fire in the basement, no exterior basement access. Engine 1 is accountability on Side Alpha, continuing offensive.*

Engine 2 and Medic 2 arrive and advise Pine Command they are Level 1. Pine Command provides the following orders to Engine 2 and Medic 2.

*Engine 2 reverse lay to the hydrant to the south, stretch a second attack line off Engine 1, go on deck Side Alpha. Medic 2, integrate with Engine 2. Engine 1 is stretching through the garage on Side Alpha to the basement.*

Watch the [incident video](#) (TheCtjake, 2023) from 00:40 to 01:00 and examine Figure 7 illustrating conditions on your arrival.

Figure 7. Conditions on Arrival of Chief 1



Note: Adapted from TheCtjake. (2023). 32 Pine Hill Ave. Norwalk, CT 12-25-2023 Video.

<https://bit.ly/3U1qmo6>

2. What actions will you take prior to contacting IC #1 (Engine 1) to begin command transfer?
  
3. State your command transfer communication after IC #1 acknowledges your radio contact (exactly as you would transmit it).

Following your confirmation of the location and assignment of Engines 1 and 2 and request for a conditions, actions, and needs (CAN) report, IC #1 provides the following CAN:

*That is correct. Moderate smoke and heat, accessing the basement through interior stairs, need companies to complete primary search and check for extension on Floors 1 and 2.*

4. State the communication you would have with IC #1 and dispatch to complete the command transfer (exactly as you would transmit it).

5. What action would you take based on the CAN from Engine 1 (IC #1). State the communications you would have with the operating companies exactly as you would transmit them.

Engine 3 arrives and reports that they are Level 1 on a hydrant at Pine Hill Avenue and Sycamore Street.

6. State the tactical assignment that you will give Engine 3 exactly as you would transmit it.

7. Chief 2 arrives and advises that they are Level 1. State the assignment you will give Chief 2 exactly as you would transmit it.

Engine 4 arrives and reports that they are Level 1 at Pine Hill Avenue and Sycamore Street.

8. State the tactical assignment that you will give Engine 4 exactly as you would transmit it.

You request a CAN from companies operating on the interior (or their tactical supervisor if you assigned Chief 2 as a division supervisor). The CAN specifies that Engine 1 is encountering increased heat, and they are applying water with good effect. If provided by a division supervisor (e.g., Division Alpha), two

additional companies are requested for the division. Dispatch provides an incident timer notification that companies have been on-scene for 10:00. Watch the [incident video](#) (TheCtjake, 2023) from 04:00 to 05:25 and examine Figure 8 before answering the several questions.

Figure 8. Ongoing Incident Conditions



*Note: Adapted from TheCtjake. (2023). 32 Pine Hill Ave. Norwalk, CT 12-25-2023 Video.*

<https://bit.ly/3U1qmo6>

A short time later, Engine 1 reports fire knocked down and indicates that they need to recycle

9. What were the potential challenges that the engine assigned to fire control in the basement faced in gaining access to the basement via the interior stairs?
  
10. While the engine company was accessing the fire in the basement, the front door (and likely the door between the garage and the house) remained open. What effect did this have on the flow paths (the volume of space between the inlets, the fire, and the outlets)? How might this impact fire behavior?

11. What tactical alternatives could be used to ventilate the basement, given that there are no basement windows and no walk up or walk out basement access from the exterior?

**Additional Learning:** If the engine assigned to access the basement for fire control and primary search during this incident encountered untenable conditions at the interior stairwell, what options exist to apply water into the basement and improve conditions?

Watch [Basement Fire Nozzle Testing](#) (UL FSRI, 2018) and discuss the options available with the equipment carried on your companies with your crews. Get out and practice deployment and operation of these types of nozzles (e.g., piercing nozzles, cellar pipes, Bresnan distributors).

## References

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