



# **The Maine Fire Protection Services Commission**

## **Live Fire Training Facility Engineering Study Summary**

Firefighters in the State of Maine are required by the Bureau of Labor to train, maintain, and be proficient in tasks before performing those tasks on the fire ground. Maine's firefighters are limited to six locations, primarily in the southern part of the state, that are suitable to conduct live fire certification training evaluations. These training facilities have been built and are maintained by local communities, fire service organizations, and the Maine Fire Service Institute (MFSI). They are also the only locations where firefighters can train and become certified for interior firefighting operations. While these sites have served us well they are all decades old; with the newest being constructed in 1995. Every fire training facility in Maine needs ongoing maintenance and repairs, some significantly. Additionally, no facility in Maine meets standards relevant to all of today's firefighting needs.

The Maine Fire Protection Services Commission (Fire Commission) along with the Maine Fire Services Institute (MFSI) have spent more than 15 years working to analyze and improve live fire training facilities in Maine. In October 2017, MFSI commissioned a tour and engineering study of current locations to determine how well they complied with current National Fire Protection Association (NFPA) standards. A summary from the report follows and defines the current condition of these facilities along with other issues that plague training for Maine's firefighters. While the engineering study provides hard facts about the current conditions, it did not address the ability of each facility to meet and provide the variety of mandatory training required by firefighters. The training facilities studied include those in Hollis, Yarmouth, Auburn, Wiscasset (closed in 2016), Bangor, Ellsworth and Caribou.

Due to their experience in studying live fire training facilities and applying the applicable NFPA standards and guidelines, Knight Consulting Engineers was selected by MFSI to perform the engineering study through a Request for Proposal process. The study concluded that the Bangor and Wiscasset facilities must receive immediate repairs before they can be used again. The Wiscasset site requires significant repairs.

The following is a summary of the notable conditions that were noted in the Knight Engineering report:

➤ **Wiscasset**

- Poor condition; repairs need to be made before continued use.  
Replacement of building recommended
- Concrete walls heavily cracked, including a large crack in the concrete block wall second floor
- Steel beam supporting second floor failing, needs additional support
- Outside stairway needs additional reinforcement where attached to building

➤ **Bangor**

- Burn room protection system needs repair around windows and has damage
- thermal panels, replacement needed

The following facilities were considered in good condition for use with repairs needed as noted:

➤ **Auburn**

- Second floor outside stairs & railings do not meet code: replacement needed
- Foundation repair/patch required
- Roof planks exposed to weather over stairs, covering should be added

➤ **Caribou**

- Thermal panels cracked, replacement needed
- Concrete block in burn room damaged, needs replacement or repair
- Slab on second floor starting to sag, reinforcement recommended

➤ **Ellsworth**

- Concrete in the burn rooms is spalling, will require constant monitoring and eventual repair/ replacement

➤ **Hollis**

- Burn room needs additional protection added around windows & doors

➤ **Yarmouth**

- Reinforcement post should be added to the beam in garage
- Foundation cracks reported: will require repair if conditions worsen

*In addition to the needed repairs, the current locations do not provide many of the props and facility components needed when training Maine's firefighters, nor are they able to serve all Maine's firefighters.*

The current facilities are not only lacking structurally in what they can offer for fire training compliant with NFPA Standards, they are lacking in efficient geographical location. Based on data from the 2017 survey of the fire service in Maine, the Fire Commission identified that eleven strategically placed fire training facilities would be required to serve 90% of Maine's fire departments within one hour of travel time. The current six active locations meet only fifty-seven percent of that need. Travel distances to our fire training locations for many fire departments, especially rural and volunteer departments, are well over an hour travel time. Safe training operations require multiple personnel, equipment, and fire apparatus; the current travel time leaves communities unprotected while training out of town and adds significantly to fatigue factors for those firefighters traveling home after training.

Another relevant concern is that no current training facility in Maine provides certified training for advanced operations, such as those involved with aerial apparatus. Aerial standards require a minimum of 40 feet of vertical height, equal to a four-story building, to properly train on aerial ladder operations. None of the current training facilities have these capabilities, since all are two-story buildings. The ability to add training towers to current or new facilities would allow departments to provide certified training for aerial apparatus and meet the current National Fire Protection Agency (NFPA) standards.

The Maine Fire Protection Services Commission is promoting legislation that will provide safe and effective training facilities strategically located across the State. It is our goal to ensure that Maine's firefighters can safely and effectively train in compliance with all the applicable standards and guidelines in the near future. Not only do we need to ensure this for Maine's firefighters, but also for the safety of our towns, cities, and rural citizens.