



# COMMAK FIRE DEPARTMENT TRAINING DIVISION



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## Commack Fire Department

### CFD Probationary Firefighter Basic Lesson Plan

#### Topic: Portable Ladders

- **Location**
  - Station 2 training center
- **Level of Instruction**
  - Probationary Firefighter
- **Equipment Needed**
  - Full PPE
  - 24' Extension ladder
  - 35' Extension ladder
  - 16' Roof ladder
  - Set of irons
  - Pike pole
  - Training dummies
- **Instructors Needed**
  - Minimum of 3 or more, depending on class size. 1 IIC and 2 assistants.
- **Resources Needed**
  - CFD Probationary FF manual
- **Terminal Objective**
  - Firefighter will demonstrate how to properly deploy ground ladders and safely operate off them.
- **Enabling Objectives**
  - Firefighter will identify the different types of ladders and their parts
  - Firefighter will properly demonstrate the different types of ladder carries (one & two-firefighter)
  - Firefighter will properly foot, raise, and lower an extension ladder
  - Firefighter will properly deploy a roof ladder on a pitched roof
  - Firefighter will demonstrate proper climbing and leg-lock techniques
  - Firefighter will demonstrate ventilation of a window from an extension ladder with a pike pole

- Firefighter will demonstrate different methods of victim removal via a portable ladder
- **Lesson Outline:**
  - Tower ladder vs. straight stick
    - Difference between operating out of bucket vs. ladder tip
  - Ground ladders
    - 24' & 35' extension
    - Roof ladders
    - Attic/closet/A-frame
  - Parts of an extension ladder
  - Ladder carries
    - 1-firefighter & 2-firefighter
    - Suitcase carry / lower shoulder / high shoulder
  - Ladder tip placement
    - Rescue vs. Ventilation
    - Laddering to a roof
  - How to raise and lower a ladder
    - 1-firefighter & 2-firefighter
    - Different methods of footing a ladder
    - Climbing angle
  - Operating off portable ladders
    - 3 points of contact
    - Leg locks
  - Ventilating from a portable ladder
  - Dismounting a ladder
    - Window entries
    - Dismount onto a roof
  - Victim removal down a portable ladder
    - Conscious vs. unconscious
    - Adult vs. child
  - Regular care and maintenance of ground ladders
    - Markings on the ladders
    - Proper breakdown and storage on apparatus
- **Summary**
  - Proper body mechanics and practice make the difference
  - Safe climbing angles / making sure ladder is footed securely
  - Can never have too many ladders on the fireground
  - Never move a ladder that's been placed unless emergency



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## Commack Fire Department

### CFD Probationary Firefighter Basic Lesson Plan

#### Topic: Roof Operations

- **Location**
  - Station 2 training center
- **Level of Instruction**
  - Probationary Firefighter
- **Equipment Needed**
  - Full PPE
  - 24' Extension ladder
  - 16' Roof ladder
  - Set of irons
  - Pike pole
  - Partner saw
  - Cutter's Edge/chainsaw
- **Instructors Needed**
  - Minimum of 3 or more, depending on class size. 1 IIC and 2 assistants.
- **Resources Needed**
  - CFD Probationary FF manual
- **Terminal Objective**
  - Firefighter will demonstrate how to ventilate a roof safely and properly.
- **Enabling Objectives**
  - Firefighter will demonstrate knowledge and operation of saws in a safe and controlled environment before roof operations
  - Firefighter will demonstrate how to safely dismount a ladder and navigate a roof
  - Firefighter will demonstrate how to determine proper location for ventilation
  - Firefighter will demonstrate different types of inspection and ventilation cuts with saws and hand tools
  - Firefighter will demonstrate how to expand a hole and make a trench cut
  - Firefighter will demonstrate proper operation from a roof ladder

- **Lesson Outline:**

- Different types of building/roof construction
  - Identifying characteristics/materials
  - Potential hazards and added fire loads
- Components of a roof team
  - Different tools and responsibilities
- Proper and safe operation of a saw on the ground
  - If any doubt exists in a student's safe operation of a saw should not be allowed to operate one on the roof prop
- How to navigate a roof
  - Dismounting & sounding
- Inspection & ventilation holes
  - Kerf / 7-9-8 / Extending a hole
  - 'Punching' out a hole
  - Importance of chain brake and grounding the saw in-between cuts
- Trenching a roof
- Operating from a roof ladder & aerial
- Proper communication with inside team and OIC
- Cleaning, fueling, and maintenance of saws

- **Summary**

- Being able to operate a saw safely and confidently is important
- Know building construction and how to identify hazards on the roof
- Always start saws on the ground before bringing them to the roof
- Having a second firefighter sounding the roof and operating as a spotter can save your life
- Ventilation of well-involved attic spaces should be done from a ladder or aerial
- Vertical ventilation should always be coordinated with the inside team and OIC
- Always try to have multiple means of egress from the roof
- **Any signs of roof failure/potential collapse should immediately be radioed to the OIC as an urgent transmission**



# COMMACK FIRE DEPARTMENT TRAINING DIVISION



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## Ladders and Roof Operations

### INTRODUCTION

Ladders and roof operations can be two separate topics, but we teach them together because they can go hand in hand. In this chapter we will talk about the different types of ladders and their different parts, how to properly utilize ladders on the fireground, how to navigate different types of roofs, and how to perform roof ventilation.

### LADDER TRUCKS

In the fire service, we utilize different types and lengths of ladders to perform our work. First, we'll briefly cover the two types of ladder trucks we can bring to a scene. Both have platforms on top of the trucks and hydraulically powered ladders that extend, retract, and raise to reach elevated surfaces. Currently, the two ladder trucks in the Commack Fire Department both have a maximum extension length of 100 feet.

*Quints* are trucks that have what we refer to as 'straight sticks' on top of them. This is a ladder without a bucket attached to the end. Firefighters must climb the ladder to reach the tip and operate.

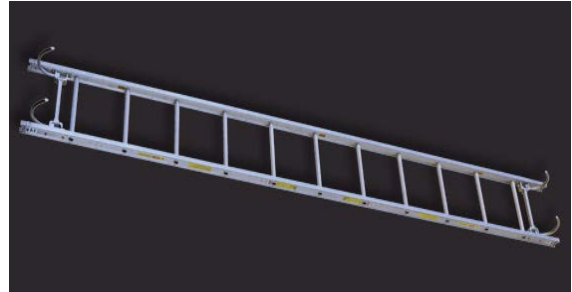
*Tower Ladders* are trucks that have a bucket at the tip, capable of carrying multiple firefighters. Typically, this set up allows for members to ride the bucket up and be raised to an elevated surface without having to climb the ladder all the way up. Also, it may sometimes allow for safer operations, as a firefighter can work tools or a saw from the safety of the platform, without having to commit themselves onto a potentially unstable roof.

Operations off of a ladder truck require confidence and knowledge of the apparatus. Communication with the chauffeur and amongst the rest of the crew is paramount. Both quints and tower ladders have both their advantages and disadvantages. It is important to train on each type and become familiar in how they work before attempting to operate off of one at a fire scene. If you're assigned to one of the companies that have a ladder truck, you'll receive further training and qualification on that specific apparatus.

## GROUND LADDERS

Every fire truck carries some type of portable ladder on it. Let's first review the different kinds you will see in our department. All of our ground ladders are constructed of aluminum. This makes them somewhat lightweight and manageable to carry. **It is important to remember that because they are metal and conduct electricity, ladders should always be kept clear of power lines.** Later in the chapter, we'll review the individual parts and how to operate them.

***Extension Ladders*** are portable ladders that can be carried by a firefighter and extended up to the desired height through the use of 'fly sections.' In the Commack Fire Department, we have 35-foot and 24-foot extension ladders.



***Roof Ladders*** are portable ladders that do not extend. They are typically 16-feet long. They can be used reach to a windowsill or roofline within that distance but what makes them unique is that they have two spring-loaded hooks at the tip that can be deployed and hooked over and around a roofline.



***Attic/Closet Ladders*** are just smaller portable ladders that are more commonly utilized inside of a structure to access tight spaces (such as an attic or closet). Our department carries different types amongst our apparatus. Some of them fold or extend, and some operate as a straight ladder. You will see varying lengths between 10-foot to 14-foot attic or closet ladders.



**A-Frame Ladders** are our most compact ladder which can be carried by a firefighter and set up in an ‘A-frame’ fashion (4 legs on the ground) or unfolded and extended like a straight ladder (2 legs on the ground). These ladders vary in height but typically can extend as high as 18-feet when unfolded (straight). When operated as an A-frame, it can be locked off at every rung and extend as high as 11-feet. Besides being so compact, this ladder’s biggest advantage is providing a more stable and safer operating platform for a firefighter working overhead.



### Ground Ladder Parts/Terminology

**Rails** – The main/outside component of the ladder that runs vertical and provides structure and stability.

**Rungs** – The horizontal cross members that run between the rails and are used for climbing. Rungs are grooved to allow for better footing.

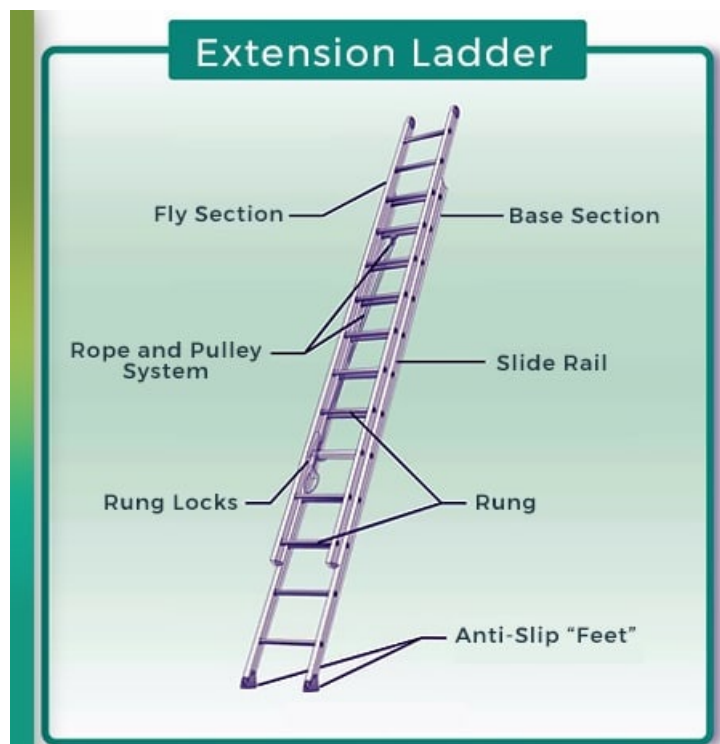
**Tip** – The topmost rung and rail portion of the ladder

**Foot/Butt** – The bottom of the ladder that will make contact with the ground. Ladders will typically have ‘feet’ or ‘shoes’ that articulate and provide better surface contact to reduce the possibility of slipping

**Base Section** – The section of ladder that does not move and will always be on the ground

**Fly Section** – The section of ladder that extends and retracts

**Rung Hooks/Dogs/Pawls** – The two hooks that capture and rest on a rung to ‘lock out’ a fly section when it is extended. It is important to make sure these hooks rest properly on top of, and beneath the rung when being used.



*Halyard* – The rope that runs through the pulley system on an extension ladder used to raise or lower the fly sections.

*Heat Sense Label* – Every extension and roof ladder in the department has a heat sense label affixed to a rail towards the tip. This sticker will change color to indicate to the user if the ladder has been subjected to extreme heat which may have damaged the integrity of the ladder. Any ladder indicating exposure to extreme heat must be taken out of service for evaluation and testing.

*Height Label* – All ground ladders in the department should be labeled with the maximum height, in feet the ladder can extend to. This label will be affixed on the outside of a rail at the bottom of the ladder.

## **Ground Ladder Operations**

### ***Ladder Carries***

There are several different types of ways to carry a ground ladder. Foremost, firefighters are expected to be able to carry and deploy most ground ladders by themselves. Exceptions are the 34-foot extension ladder. Typically, a 35-foot extension ladder will be deployed by two firefighters to reduce risk of injury. Although intimidating at first, a firefighter with enough practice on proper form, can safely and effectively deploy a 24-foot extension ladder by themselves. If utilizing two firefighters on a ladder carry, it is important that the two members are both walking and carrying the ladder on the same side.

*Suitcase Carry* – The firefighter will pick up and carry the ladder horizontally, holding it by the topmost rail, as if you're holding a suitcase (one- or two-member carry).





*Low-Shoulder Carry* – The firefighter will pick up and carry the ladder horizontally, raising it while running their free arm through the rungs so that the upper rail rests on the firefighter’s shoulder. The firefighter will then grab a forward rung with that same hand. The second hand can be used to grab an even further rung to increase stability (one- or two-member carry).



*High-Shoulder Carry* – The firefighter will pick up and carry the ladder horizontally, raising it high enough to rest the bottom rail onto their shoulder. The firefighter will then use the arm of the shoulder the ladder is resting on to grab either a forward rung or the top rail (one-member carry). Although a high-shoulder carry can be more difficult to lift onto a firefighter’s shoulder, a benefit to this carry is that it gives the firefighter the added height and momentum to ‘spike’ the butt of a ladder to the ground for a raise in one fluid movement, as opposed to placing the ladder onto the ground and then raising it.



\*\*\* When lifting a ladder for a carry, a single firefighter should find the mid-point of the ladder to balance its weight during the carry. An imbalanced ladder will run away from the member, resulting in a dangerous situation. As stated earlier, having proper form and body mechanics is paramount in ensuring a safe and proper ladder carry. These techniques vary based on whether the ladders are picked up off the ground or off a truck. Your instructors and fellow firefighters will demonstrate proper techniques. Practice is the only way to avoid injury and maintain control during ladder carries. \*\*\*

Generally, the butt end of a portable ladder is carried to the fire building first, to allow for a more seamless ladder raise. If a roof ladder is being deployed up to a roof, it should be carried with the tip towards the fire building.

## **Ladder Tip Placement**

The intended use of a ladder dictates how a firefighter will place it against a building. When a ladder is being thrown to a window, it can be placed for 'rescue' or 'ventilation.'

*Rescue* – When a ladder is placed for 'rescue,' the tip will be rest just below the sill of the window. This allows for firefighters to easily enter and exit the window without the ladder getting in the way and obstructing the window opening. When performing a victim removal from a window, the victim can be passed down the ladder without having to lift them up and over the tip of the ladder first.

*Ventilation* – When a ladder is placed for 'ventilation,' the tip will be placed beside a window, approximately 2-3 rungs higher than the windowsill. This allows for a firefighter to climb the ladder and stand beside the window, reducing the chance for overreach or injury when using tools to remove the glass and window sash. It is important to place the ladder on the upwind side of the window. This way, smoke escaping the window once it is vented will travel away from the firefighter.

\*\*\* Ground ladders are more commonly raised to a windowsill for rescue, especially since a firefighter may ventilate a window and immediately need to make entry. Firefighters operating inside of the structure may depend on the ladder to exit the building or remove found victims. A window can still be cleared and vented with the ladder placed in this manner. The ventilating firefighter must be cognizant of falling glass and debris. \*\*\*

When laddering a roof, ladder tips should be raised 2-3 rungs above the roof line. This allows for a firefighter to side-step off the ladder and onto the roof, as opposed to having the climb over the ledge. The same applies when laddering a fire escape.

- When laddering a commercial roof, avoid placing the ladder to parapets. Parapets usually have substantial drops to reach the building roof line.

## *Ladder Raises*

Once a firefighter has gotten the ladder to the location its to be deployed, its time to raise it for use. Keep in mind, anytime a ladder is raised or lowered, firefighters must check for overhead obstructions, especially powerlines.

1. If the firefighter is utilizing a high-shoulder carry, while still in motion, they can use their momentum to push the butt of the ladder into the ground, simultaneously pushing the top half of the ladder up and forward against the building.
2. If the ladder is already on the ground, the firefighter should lay the ladder flat, grabbing both rails closest to the tip, and push the butt of the ladder into the base of the building.
  - a. If using a second firefighter, the ladder should be kept on its side. One will plant his foot firmly to the ground behind the rail of the ladder on the ground to butt he ladder.
3. The firefighter can now begin to raise the ladder, keeping their hands wrapped around the rails, slowly sliding both hands down while simultaneously walking towards the building and pushing the ladder up until its completely vertical.
  - a. If using a second firefighter, the stationary firefighter will pull up on the upper rail as the other firefighter lifts and walks the ladder up into position.
4. Once the ladder is against the building, the firefighter should ensure it is under the intended target. If the ladder needs to be moved left or right, the firefighter can stand in front of the ladder and grab both rails, lifting it off the ground just enough to walk it side to side. The firefighter should create a slight angle, keeping the tip of the ladder rest on the building to maintain stability.
5. To raise the fly section, the firefighter should pull the halyard, hand-over-hand, until the tip is at the intended height. The firefighter must ensure the rung hooks are locked off before releasing tension.
  - a. Once the fly section is locked off, the halyard should be secured to a lower rung with a simple overhand knot.
6. The proper climbing angle for a ground ladder is 75°. While standing facing the ladder, the firefighter should grab both rails and walk backwards, pulling the bottom of the ladder out, while keeping the tip in contact with the building. Obviously, no firefighter is carrying a protractor with them to fires. To get as close to a 75° angle as possible, the firefighter should stand facing the ladder, with the tips of their feet touching the bottom of the rails. While standing straight up, the firefighter should extend both arms and hands forward. The ladder should continue to be pulled out until the tips of the members fingers are just touching the rails of the ladder. This is a quick and simple way of getting a ladder to an approximate 75° climbing angle.

7. If the tip of the ladder needs to be repositioned, the ladder can be ‘rolled’ while resting against the building. The firefighter will simply continue to flip the ladder, rail over rail, until the tip of the ladder is at the intended target.
8. *Fly-in or fly-out?* Generally, our Department will operate with the fly section of the ladder facing out, or on top. This allows for easier manipulation of the ladder if needed. The ladder can, however, be positioned fly-in. This does allow for a slightly wider ladder profile for the firefighter operating at the tip.
9. Once the ladder is at the intended height, position and climbing angle (we’ll talk more about tip placement shortly), the firefighter should ensure the feet of the ladder are both flat on level ground.
  - a. If the ground is not level, wooden wedges can be used underneath the boot of the ladder that is below grade, to help level the ladder.
  - b. If there is any doubt as to whether the butt end of the ladder may slip out or move, when a firefighter is on the ladder, a second firefighter should remain at the bottom of the ladder, on the outside, keeping one leg planted firmly against the bottom rung, and hands on each rail. This is referred to as ‘butting the ladder.’ This firefighter should never stand underneath the ladder.
    - i. If manpower doesn’t permit a second ‘butting’ firefighter, various tools, such as a stake, Halligan, or crowbar, may be driven into the ground against the bottom rung, to prevent the ladder from slipping out.

### ***Ladder Lowers***

Once it is determined the ladder is no longer to be used and can be put away, the firefighter should follow the sequence of a ladder raise in reverse. Once the ladder is secured in the retracted position, the halyard rope should be secured to a lower rung with a simple overhand knot. Ground ladders are stored tip-in to the back of ladder trucks. This allows for a firefighter to read the height label of the ladder when pulling it out of the back of the truck.

### **\*\*\* Ladder Raise/Lower Notes\*\*\***

1. Remember to always check for overhead obstructions before you raise a ladder.
2. If performing a raise or lower with two firefighters, the same sequences apply. It is important to communicate with each other and perform tasks at the same speed. Like all team firefighting skills, commands should be kept short and concise to avoid confusion. (“**READY, RAISE**” / “**READY, LOWER**”)
3. When possible, do not place a ladder in front of a window or door. You do not want to obstruct the egress of another firefighter or risk a ladder being knocked over.
4. When a ladder is placed, it never gets moved, unless in an emergency circumstance. The last thing you want is a firefighter relying on a ladder that is no longer in its original spot.
5. Ladder angles can be slightly adjusted to either increase or decrease the climbing angle. It is imperative to remember that as the angle of the ladder decreases, the potential for the ladder to ‘slip out’ and fall (pancake) increases. You must ensure both the tip of the ladder and the butt of the ladder are secure.
6. Ladders are long and heavy pieces of equipment. It is very easy for a firefighter to become injured when manipulating one. That is why practice, good form, and communication are important to reduce the possibility of injury.



### ***Climbing & Operating Off of a Ladder***

- When a firefighter is climbing a ladder, a second firefighter should ‘butt’ or ‘heel’ a ladder, keeping downward pressure on the rails to prevent the ladder from moving.
  - o This firefighter must remember to remain alert, watching for falling tools, glass, or other debris.
- A firefighter climbing a ladder should step on the rungs with the balls of their feet, towards the arch of the foot. The firefighter should have both hands placed on the rails of the ladder, sliding their hands up the rails as they climb.
  - o When climbing a ladder, a minimum of three (3) points of contact with the ladder should always be maintained.
- When climbing a ladder, a firefighter should always be looking forward or up, towards what they are climbing.
- If a firefighter is climbing with a hand tool, the tool should be kept in the palm of one hand and slid up the rail of the ladder, maintain contact.
  - o Tools such as halligans and pike poles can be hooked onto rungs and moved up the ladder as the firefighter ascends, keeping the firefighter’s hands available.

- Firefighters should utilize webbing or straps to sling a saw onto their body before climbing a ladder. Keep in mind that this will make climbing more difficult if the weight of the saw is not balanced properly. The firefighter should make every effort to lean forward, into the ladder when climbing, not backward.
  - Whenever possible and practical, a firefighter should climb a ladder with free hands and have a second firefighter hand tools up to them or utilize rope to hoist the tool up.
- Leg Lock: To operate from a ladder more safely, a firefighter can utilize the leg lock technique. This entails the firefighter passing his foot forward between two rungs, and then back under the lower rung. When completed, one leg should be wrapped around a rung, with the inside of the knee resting on a rung, and the top of the foot locked under a lower rung. This technique is best demonstrated by an instructor.



- If not utilizing a leg lock, a firefighter operating off a ladder must remember to keep both feet firmly planted on the rungs of a ladder and spread apart as much as possible. A firefighter can press their knees into the insides of the rails to create another point of contact.
- Never overreach or manipulate your body to the point where you may lose your balance or shift the weight of the ladder, causing it to fall.

### *Venting A Window*

Whether it be to enter a room or just ventilate the heat and smoke from the room, the firefighter must be sure to completely clear out all of the glass, the sash, any blinds or drapes, and any other potential obstructions. Leftover glass can potentially cut a firefighter or civilian and an incomplete can cause unnecessary problems for firefighters to enter and exit the window, especially if they have a victim. When ventilating a window, take the extra time to make sure it is completely cleared out. Full PPE should **always** be worn. Gloves, eye protection, and a helmet will save a firefighter from serious injury.

**\*\*\* Premature ventilation of a structure may produce adverse conditions inside of the building and further fuel the fire with oxygen. All ventilation should be coordinated and confirmed with interior fire attack as well as the O.I.C.\*\*\***

1. Once the glass of a window of a charged room is broken, smoke will immediately begin to push out. It may be advantageous to don your facepiece and hood before climbing the ladder. If an effort to save air, you can leave your regulator out until you

- need it. It is much easier to don your facepiece on the ground as opposed to on the top of a ladder.
2. If you're positioning the ladder to only ventilate (not enter the room), the tip of the ladder should be placed on the *upwind* side of the window. This places the ventilating firefighter out of the direct plume of smoke when it starts to push out.
  3. Whether the tip of the ladder is placed to the side or to the sill of the window, the firefighter should climb as high as safely possible to position their torso above the windowsill. This will limit the potential of being hit in the face by glass when venting.
  4. Before breaking the window, the firefighter should make sure they have a firm stance or leg lock on the ladder and check below the ladder for firefighters or civilians in the path of falling debris.
  5. The firefighter should utilize a pike pole to begin taking the glass. You should always start at the top corner that is furthest away from you and work your way down towards the sill.
    - a. Glass will shatter and fly towards you. A venting firefighter should do their best to shield their face and blade their body away from the window as much as possible.
  6. Once the majority of the glass is cleared, fully remove the sash from the window. This is usually accomplished by forcibly swinging downward onto the sash with a pike pole or Halligan.
  7. With the sash cleared from the window, the venting firefighter should utilize a tool to clear out any blinds, drapes, or other obstructions as well as 'sweep' the window of any remaining glass. The firefighter will run their tool along all four sides of the window to do so.
  8. If a ladder is initially placed to the side of a window to ventilate, when ventilation is complete, the firefighter should make an effort to move the tip of the ladder to the windowsill incase it needs to be utilized for a rescue or firefighter bailout.

A window can also be ventilated and partially cleared by rocking the tip of a ladder backwards and slamming it into the glass. Keep in mind that this may put the firefighter in the path of falling glass and a firefighter will still have to ascend the ladder to completely clear out the window.

## *Dismounting a Ladder*

### Windows:

Before a firefighter enters a window, they should always check the structural integrity of the floor with a tool. Sweep the floor just inside the window with the tool (feeling for possible victims as well) and then bang the floor with the tool to check for soft spots or holes. The firefighter should reduce their overall profile in the window as much as possible to avoid exposing themselves to heat and smoke. The firefighter should simultaneously wrap one arm around the outside of the building while conducting a slow and controlled head-first dive into the room. The free, leading hand should be used to help support the firefighter's weight on the inside wall. Once the firefighter's body has begun to pendulum over the windowsill, they should bend and swing both legs up and into the room, rotating their legs underneath their body. Keeping your outside arm wrapped around the outside of the building is paramount in controlling the descent into the room and avoiding injury. This skill will be covered and practiced more during V.E.I.S. (Vent, Enter, Isolate, & Search)



### Roofs:

Similarly, a firefighter should always check the structural integrity of the roof before dismounting a ladder. Use a pike pole to bang and 'sound' the roof several times in front of and to the sides of the ladder. Once on the roof, at least one firefighter should sound the roof with every step taken, continuing to ensure the roof is structurally sound.

**\*\*\*Always remember to don your facepiece and regulator before entering any IDLH environment\*\*\***



## *Victim Removal*

Removing a victim from an upper floor via ground ladder is not an easy task. Even trying to coach a conscious victim can be chaotic. Victims will often be in a state of panic and ignore simple instructions. A single, trained firefighter in turnout gear on a ladder is already a potentially hazardous operation. Adding an untrained or unconscious victim to the ladder can result in loss of balance.

- When assisting a conscious and mobile victim from a window, the firefighter should remain at the tip of the ladder and assist the victim in climbing backwards, feet first onto the ladder. Once they have two feet and two hands onto the ladder, the firefighter should climb backwards below them, coaching them through the entire process. The firefighter should remain as close as possible to the victim, wrapping their arms below the victim's lower body, if possible, to ensure they remain in contact with the ladder.
  - o If a victim loses their grip and begins to fall off the ladder, it will be nearly impossible to catch them. Therefore, the rescue firefighter needs to keep them as calm as possible and pay close attention. Do your best to provide slight inwards and upward pressure onto the victim's body to prevent them from descending too quickly or falling backwards.
- An unconscious victim can be lowered down a portable ladder one of two ways.
  - o With the victim lying across the rails of the ladder facing the ladder, with arms and legs outside of the rails. The rescue firefighter will grab both ladder rails underneath the victim's lowermost armpit and through and legs of the victim, supporting the victim's weight as they slide their hands down the rails.
  - o With the victim in a 'seated position.' The victim will be placed onto the ladder facing outwards, with their legs resting on top of the rescue firefighter's shoulders as the firefighter stands on the ladder. The rescue firefighter will maintain hand contact with the rails, supporting the weight of the victim with their shoulders and cradling the body between them and the ladder with their arms and chest.
  - o Small children should be cradled in the arms of the rescue firefighter between their body and the ladder.





### ***Portable Ladder Info / Maintenance***

- Once a year, the fire district contracts an outside company to conduct ladder testing of all the department's portable ladders. This entails testing their weight capacity, examining the overall operability, and general condition. Regardless, it is every member's responsibility to inspect their company's portable ladders and ensure that they are clean and operable.
  - o Check for cracks and breaks in any welds, loose rungs, make sure the halyard isn't frayed or cut, check the heat sense label, check for broken feet, and ensure that any moveable parts operate without issue.
  - o Any doubt on the integrity of a portable ladder should be immediately brought to the attention of your company officer.
- The Commack Fire Department carries two different manufacturers of portable extension ladders: Alco-Lite and Duo-Safety. Both are constructed of aluminum and operate the same. Duo-Safety ladders tend to weigh slightly less but Alco-Lite ladders are slightly shorter when retracted and stored.
  - o All extension and roof ladders are rated for 750lbs with a 4:1 safety ratio.
    - 24' extension ladders weigh approximately 75lbs
    - 35' extension ladders weigh between 120-130lbs depending on manufacturer
    - 16' roof ladders weigh approximately 60lbs

## Roof Operations

During fireground operations, firefighters assigned to roof operations or the 'roof team' will proceed to the roof to help size up the building and any possible fire progression as well as begin to vertically ventilate the structure. Earlier in the chapter, we covered that this can be done via aerial or ground ladders.

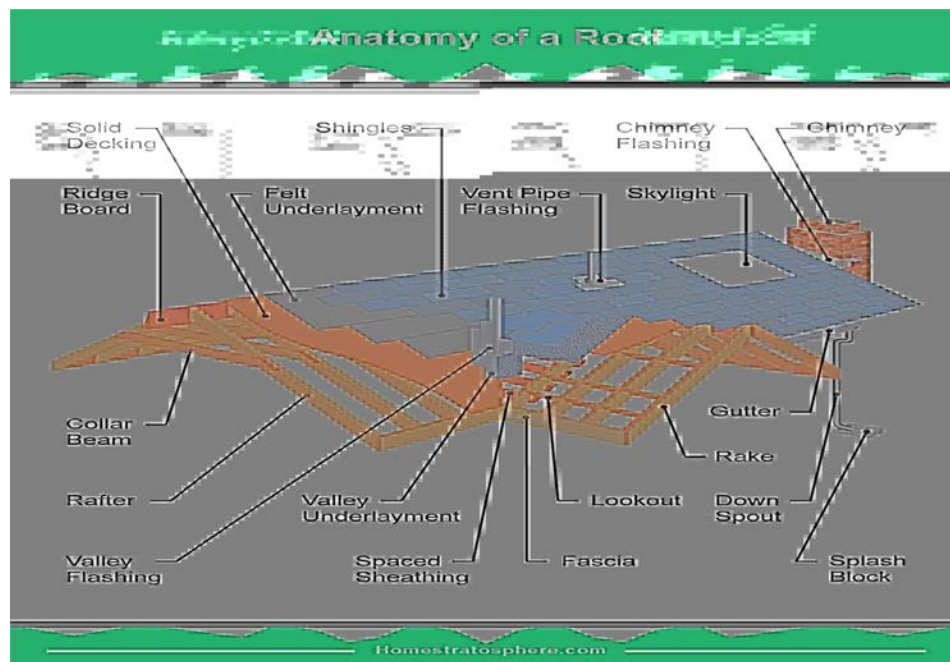
*Vertical Ventilation* is the process of creating openings in the roof to allow for the release of heat and smoke. When vertically ventilating a top floor or attic fire, it will encourage fire spread up and out of the building as opposed to spreading horizontally and involving more of the structure. Vertical ventilation can be done by removing 'natural' openings such as vents and skylights or using a saw and hand tools to cut a hole. Whenever possible, natural openings should be utilized first because it is less invasive and can be done more quickly than cutting a hole.

## Roof Construction

Roofs vary in all different types of construction. It is important to recognize and understand what you may be operating on beforehand. The building construction chapter goes more in depth into everything you may encounter. Checking preplans while enroute and knowing what to look for when you size up a roof will help you and your crew stay safe.

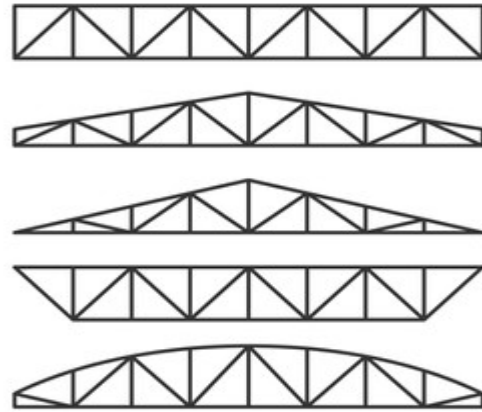
'Sounding a roof' to check for integrity is of the upmost importance before dismantling a ladder. As discussed earlier, a firefighter should use a pike pole to continuously sound the roof as they walk around. Any indication of sagging or soft roof should not be operated on. Firefighters should instead perform any necessary ventilation from the tip of an aerial device.

Typical wood frame construction will have 2x8 or 2x6 roof beams. Heavy timber roofs may utilize larger diameter lumber such as 4x6 and 6x6 beams.



Truss roofs can be constructed of wood or steel. They are essentially an interconnected web of triangular beams that, as a system work to support a large load of weight over a long span. Although very strong as a whole, when a structural member of the system becomes compromised, the entire truss can fail.

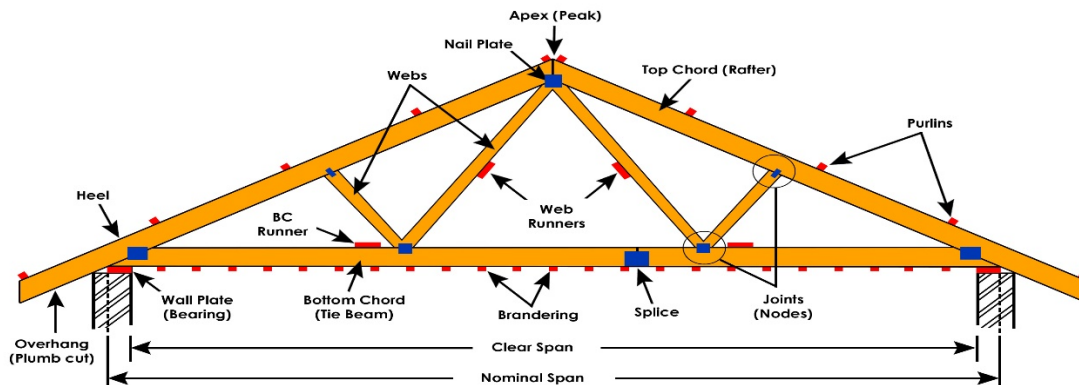
**\*\*\*Truss roofs should not be operated on when there is fire in the attic space due to the high potential for failure\*\*\***



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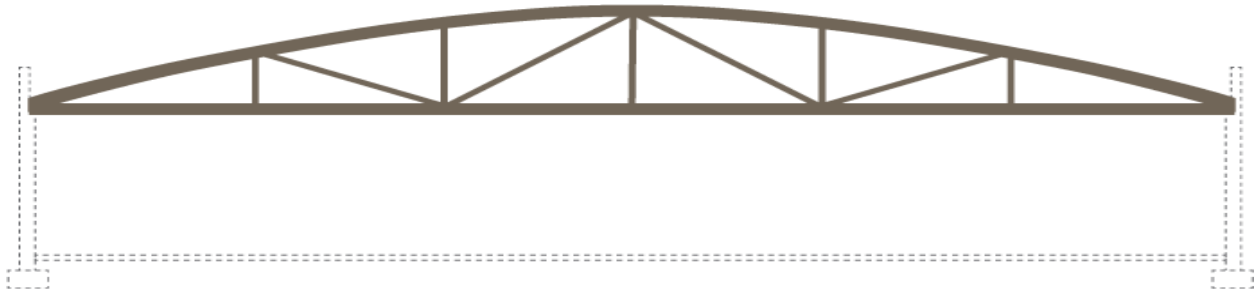
There are many variations of truss roofs. In this chapter we'll cover touch on two types that every firefighter should be familiar with.

1. A *peaked truss roof* does not have a ridge beam. On typical peaked construction, the ridge beam is the strongest structural member. Because a peaked truss roof does not have a ridge beam, the way you navigate and ventilate may change based on fire conditions.



2. *Bowstring truss roofs* consist of an arched beam, or the bow, which acts as the upper chord to support a wide span. Bowstring truss roofs can be used in certain commercial structures that require large, column free spaces such as supermarkets, bowling, alleys, and car dealerships. Bowstring roof construction may present with a characteristic rounded or arched roof line, but this is not always true. It can be blocked by parapet walls.

**\*\*\*Bowstring roof truss is known to fail early and without warning when affected by a heavy fire load\*\*\***



### **Roofing Materials**

- Plywood Roof – ½ or ¾ inches thick with tarpaper and asbestos or fiberglass shingles.
- “Q” Decking Roof – Corrugated steel or aluminum deck with particleboard with tar and gravel.
- Tongue and Groove Roof – ¾ inch thick by 4 inch wide covered with tar paper and shingles.
- Concrete Roof – Reinforced with steel covered with tar and gravel

### ***Roof Team Tools***

*Radio/Flashlight* – A must for every firefighter on the fireground. Roof firefighters need to radio potentially dangerous conditions as well as ventilation progression to command. Roof operations at night and under heavy smoke conditions make the use of a flashlight a must.

*Pike Pole* – Used to sound the roof as well as lift roofing materials during ventilation efforts

*Saw* – Used to ventilate the roof. Residential wood roofs require the use of a Cutter’s Edge saw or chain saw. Commercial roofs require the use of a K-12 or partner saw. When cutting commercial roofs, the roof team should bring up extra saw blades.

*Pike-Headed Axe* – Used to help ventilate existing, ‘natural’ points of ventilation such as roof vents. An axe also acts as backup means of opening a roof if the saw was to fail.

*Rope* – Roof teams can utilize a bag of utility rope to hoist and lower tools without having to carry them on a ladder.

A roof team typically consists of a minimum of two firefighters. One firefighter is tasked with navigating and consistently sounding the roof for stability with a pike pole. The second firefighter will operate the saw. The sounding firefighter must keep constant watch over the saw firefighter to ensure he does not trip, fall into an opening, or fall off of the roof.

## ***Cutting The Roof***

### **Kerf Cut:**

A kerf cut is used as a smoke-indicator hole and is accomplished by plunging the saw blade or chain once into the roof to indicate the presence of smoke or fire in the cockloft. When navigating a roof, kerf cuts should be made every 10-15 feet along the firefighters path of travel.

### **Inspection Holes:**

An inspection cut is done by a roof firefighter to analyze roof construction as well as fire conditions below. Inspection cuts are crucial to make to ensure vertical ventilation is being done over the fire and in the proper spot. Cutting larger holes in the roof in the wrong location can adversely affect fire conditions and influence fire spread.

This cut is done by simply dropping the saw chain or blade into the roof three times, cutting a small triangle. Once all the cuts are connected, the center is punched in or pulled up out of the way. A pike pole should be used to ‘punch down’ the ceiling below to allow for an unobstructed path for heat and smoke to travel up.



### **Ventilation Holes:**

Once a roof firefighter has verified the proper spot of vertical ventilation, a ventilation hole can be cut. Ventilation holes should be square or rectangular. The standard size for a ventilation hole is 4'x4' but it can be as big or small as needed.

\* When cutting the roof, the saw firefighter should lift and roll the saw over rafters and other structural members. Roof rafters are typically 16" apart but can vary. There will be noticeable difference in blade resistance when you reach a rafter. The roof rafters maintain the structural stability of the roof you are operating on. Being comfortable in operating a saw and knowing when to feel for rafters takes training and competence. \*

1. The first cut should be horizontal and furthest away from you (downwind).
2. The second cut is made approximately 2 foot long and on 45° angle down from the first cut (this will allow for the roofing material to be pulled up more easily when all the cuts are completed).
3. The third cut is made at a 90° angle to the first cut extending vertically and overlapping the first and second cut.

4. The fourth cut is made at a 90° angle on the other side of the first cut, overlapping and extending vertically as far as the third cut.
5. The fifth cut is made horizontally, as long as the first cut, and overlapping both the third and fourth cut.
6. Additional vertical cuts can be made overlapping the first and fifth cuts. This allows for heavy and well secured roofing material to be lifted out of the way.
7. Once all cuts are complete, A pike pole should be used to pull up the roofing layers
8. With the hole completely opened up, a pike pole should then be used to ‘punch in’ any obstructions and ceiling to allow for heat and smoke to lift vertically (use the butt-end of the pike pole to avoid getting hooked up on electrical wires, ceiling members, insulation, and contents).
9. Holes can be widened as necessary by extending cuts from the existing hole in any direction.



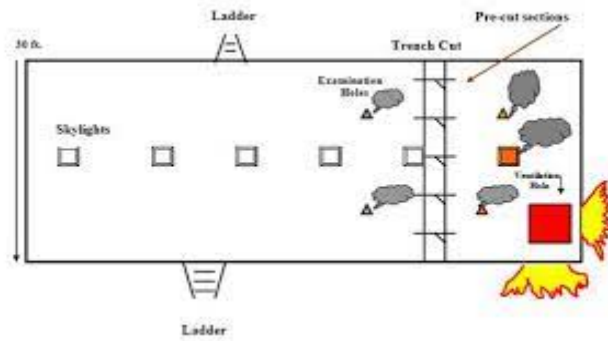
This ventilation process is often referred to as the “7-8-9” method and keeps the saw operator outside of the cuts at all times.



### Trench Holes:

Trench holes are often utilized on roofs to impede fire spread between adjoining occupancies. Trenching a roof is done by extending a ventilation hole to both ends of a building to create a line in the roof. When cut properly, any fire and superheated gases will escape vertically as opposed to traveling further horizontally through the structure. Inspection holes should first be made at opposite ends to monitor conditions below.

- Trenching a roof is a saw and manpower-intensive operation.
- Trenching is a defensive operation. When the decision has been made to trench a roof, this usually means the original involved occupancy may be written off. Firefighters should remain alert to conditions and constantly monitor the roof stability.
- Because trenching a roof is a labor-intensive operation, regularly make sure the fire has not already made it under you and past the trench cut.



### ***Roof Ladder/Aerial Operations***

When operating on a peaked roof, firefighters can deploy a roof ladder or utilize the bucket/aerial to safely operate off.

- When using a roof ladder, the cutting firefighter should stand in-line with the intended hole location. The pike end of a Halligan can be driven into the roof to provide additional footing, giving the firefighter a wider, more stable platform.
- A second firefighter should always stand just below, maintaining contact with the cutting firefighter to prevent them from becoming unstable.
- If utilizing the aerial device, the second firefighter should maintain a strong grip onto the cutting firefighter.
- When utilizing the bucket of an aerial, the cutting firefighter should be tied into the bucket.





## ***Roof Operations Safety Tips/Tricks***

1. Always remember to constantly reanalyze and sound the roof before and during operations
2. Roof firefighters should ensure multiple points (ladders) of egress off the roof. You should not allow fire between you and your escape route.
3. The strongest areas of the roof are the ridges, valleys, and along rafters.
  - a. On older flat roofs, natural sagging occurs and you can often visualize the outline of rafters.
4. Always maintain orientation. In dark or smokey conditions, it can become very easy to unsuspectingly walk into an open shaft, a skylight, or off the side of the roof.
5. Commercial storefronts usually have parapet walls extending above the roof line. This could mean for a substantial drop from the ladder tip to the roof. Be sure to complete a proper size up of the building before committing to one spot.
6. Commercial structures usually have heavy equipment such as HVAC units stored on the roof. This adds thousands of extra pounds onto a roof that may become compromised by fire.
  - a. Heavy rain, ice, and snow can also contribute to this weight
7. Vertical ventilation should **always** be coordinated with the OIC and interior crews. An improperly placed ventilation hole can lead to rapid fire spread.
8. Always remain upwind when ventilating the roof to stay clear of rising/drifted smoke.
9. Operating saws is an inherently dangerous skill. Familiarity and competence are essential before using a saw on the fireground in adverse conditions
10. Start all saws to ensure they work before proceeding to the roof.
  - a. In the result of saw failure, the pike-headed axe can be used as a substitute
11. Always utilize the chain brake on cutters edge and chain saws when not actively making a cut. The brake should be disengaged right before plunging the saw and reengaged immediately after the chain is clear from the hole.
  - a. K-12 and partner saws do not have a brake. When finished with a cut, the blade should be gently pushed into the roof before lifting/turning any further.
12. A K-12 and partner saw can be ‘walked’ along a roofline to cut down on fatigue and aid in sounding the roof ahead of the firefighter.
13. **Any signs of roof failure/potential collapse should immediately be radioed to the OIC as an urgent transmission.**







## COMMACK FIRE DEPARTMENT

### “Back to Basics Training Bulletin”

**GROUND LADDERS:** In the fire service ground ladders are sometimes taken for granted and not talked about or trained with nearly as much as they should be. So when we talk about the basics of ground ladders what do we really need to know? We are going to break it down into a few categories; types of ladders, uses for the ladder, proper selection and ladder carrying. For the purposes of this training bulletin we are going to be focusing on ladders that we would be selecting for working fires.

The first things we all need to commit to knowledge are the types of ladders we have, the lengths that we carry and the locations of each of those ladders. Its important that we all have a general idea of where ladders are stored on every piece of apparatus within the department as it very feasible that we could be grabbing ladders off of any rig during a fire operation.

The next thing we need to understand are what are we using ladders for? We can use ladders for a variety of different things including rescue, access, ventilation and VEIS. All topics within themselves and as you can imagine. We need to know and understand this because it has an effect on which size ladder we end up selecting in order to complete the task. Which brings us to our next category of selecting the proper ladder.

Proper selection of a ground ladder is all about size up. We need to start going through that mental checklist once we are given our assignment. What is our job? Are we going to a widow sill or a few rungs over roof? What floor are we accessing? Does the grade of the land effect the overall distance? By starting to answer all these questions and hopefully getting a visual of the location where they need to be placed we can start doing what some refer to as “ladder math”. As a general rule of thumb its typically 8’-10’ from one floor to another, the window sill typically sits about 3’ off the floor; So as an example: If we are looking to access a 2<sup>nd</sup> floor window we can play it safe and say it’s about 13’ from the **ground level** (10’ between floors + 3’ to the sill), now depending on where the 1<sup>st</sup> floor is in comparison to the grade of the land, we might be adding to the total distance. From here we can get a rough idea of the height of that window sill but we obviously know that our ladders are thrown at an angle thus taking off from vertical reach. A good rule to follow is that for every 4’ we pull the bottom away from the wall it will take about 1’ off the vertical reach. So very simply put, if we had a 12’ ground ladder thrown at the proper angle, probably pulling the bottom off the wall approximately 4’ than that 12’ ladder would only get us up to about 11’.

Once we select the proper ladder now we have to get it into place. Getting ladders into position needs to be practiced as a one-man job. As a firefighter you have to be physically capable of removing ladders off the rigs, and putting them in place ready to be used by yourself. Now there are many different ways to carry a ladder, and they are all personal preference. I for one like to use the shoulder carry. Reason being is that once I locate the center (should be marked by bright tape or paint) of the ladder and get it up on my shoulder it is balanced and all the weight is transferred onto my shoulder through the rest of my body, it allows my other hand to be free in order to carry any other tools. By having it high up on my shoulder it also allows me to manipulate it by tipping it forward or backward in order to defeat any obstacles, trees, bushes, fences. If you can imagine coming up to a gate that is closed and being in the suitcase carry, you now have to put the ladder down in order to open that gate. In the high shoulder carry you can shift the load slightly and get the front of the ladder over the fence allowing you to be able to get within an arms length of the gate and use a hand on the gate locking mechanism in order to open it. I also like this carry because I can keep my head up and scan for any overhead obstacles, select a rough location for the feet of the ladder and in one motion plant the feet and get the ladder vertical. Once we get it vertical we are good to go, at this point we can raise, lower or manipulated as needed whether using the building or not as an aide.

**FINAL THOUGHTS:** Knowing what you have is the first step, knowing why we need a ladder and the proper placement for that task is next. What comes after that is all about sizing up the building, this size up with some general building construction knowledge allows you to know what length ladder you need to grab. When it comes to carrying the ladder it’s a personal preference. The only way to master your skills is to get out there and practice. Throw ladders whenever you get a chance, practice getting them off the rig. Put the time in now so when you become the guy needing to throw a ladder it becomes second nature.

***Stay safe and keep training...This week's edition written by EX-Chief Wilkins***





## COMMACK FIRE DEPARTMENT

### “Back to Basics Training Bulletin”

#### **PRIVATE DWELLING ROOF TIPS**

##### **For 1 & 2 Story Private Dwellings:**

1. If the fire is not in the attic, unless a heavy fire condition directly below the attic space warrants it (*the engine company can't get down the hallway*) there is no need to vent the roof.
2. When opening the roof there may be problems with pushing down on what you cut
3. If the roof is open near the top or by the ridge pole, your hook may not reach the ceiling.
4. Use horizontal ventilation, when you vent by opening or breaking out the windows, that should be enough, especially in a single story ranch type

##### **Cutting a Hole:**

If you need to make a hole in the roof, try to make the hole over the fire. Good indications that you're over the fire, is in winter you might see melted snow spots in the area, melting or bubbling tar are some good examples

1. Your first cut can be either across the top or down one side. When you make your cut, see which way the smoke is blowing, this will determine the second cut because you want to be upwind of the smoke.
2. After making your second cut, at the top corner, make a cut that will form a triangle to give the hook access for pulling the roofing material up and off when your done
3. Your hole should be 4ft by 4ft, however after making cuts one and two, make your second vertical cut at the center of your top cut.
4. Then make your 4ft bottom cut, then finish your finale vertical cut. At this point you made 5 cuts and will have a two, 2ft by 4ft squares.

Note: You should also extend either your horizontal or vertical cuts, in case you need to make the hole larger. By doing this you won't have to go to the edge of the hole to start the cut.

##### **Things to think about:**

- Never vent a window or door prior to water being put on the fire
- Some people put plywood as a floor in the attic which will impede you fully opening the roof for ventilation.
- If you have a basement fire, opening the roof will only draw the fire up through the “Pipe chases” and into the attic. Pipe chases are found in bathrooms and kitchens. They're where the plumbing goes in every house and should always be checked if you have a basement fire.
- If the fire is already through the roof, your job is done. *There is no need to be on the roof!*
- If there's an attic vent, knock the cover off
- If the roof feels spongy, or you see a sag in the roof, inform command with and “urgent” and get off the roof!

#### **Stay Safe and Keep Training**

This week's edition written by former Asst Chief and Captain of Truck 1 Ed Monahan





## COMMACK FIRE DEPARTMENT

### “Back to Basics Training Bulletin”

#### **Taxpayer Fires – The Truck Tools and Tactics**

**The search rope, the search rope, the search rope!** This is NOT your typical wood frame house fire. The 1<sup>st</sup> due truck will be searching for the seat of the fire for the engine. You can be searching a labyrinth with cubicles, a maze with many aisles, a wide open space with no reference points to catalog in your mind as you go or any combination of the three. In a taxpayer that's 75' deep, when you start adding turns, the amount you crawl could double the depth of the store or more. If the shit hits the fan and you've made 5 turns, do you honestly think you'll be able to withdraw from the building in a timely fashion? Even if your only 40' into the building, are you really going to remember I made a left a right a right a left and a left when conditions are rapidly deteriorating? Do you as the officer think your crew will? It not only can save your life and the lives of your crew, but it gets the engine to the fire faster as well. What's better? “Truck 1 to engine 3, we found the fire, come in 10 feet make a right, then go 20 feet make a left the go 5 feet make a right then come 20 feet to the rear”. Or “Truck 1 to engine 3, we found the fire, follow the search rope to the rear”? It's a no brainer. Officers MUST bring the search rope to taxpayer fires or any commercial fire for that matter.

**The TIC** is also a vital tool in the arsenal. You may be able to get a fire location before you even enter the store by pointing it inside the door. Use it to check for fire in the cockloft above your head immediately upon entering and every 10' or so, you should take another look. This tactic brings us to our next vital tool.

**The 8' hook.** In store fires the can FF may need to use an 8' or even a 10' hook to pop ceiling tiles as the height may be out of the reach of a 6' hook. The TIC cannot see above ceiling tiles or a sheetrock ceiling, that makes it only as good the hook popping a hole to look for fire in the cockloft. There could also be multiple/old ceilings up there too. Try and reach the underside of the roof deck when checking the cockloft.

**The Forcible Entry Saw.** The first due irons FF, during business hours may not need it in the front, after business hours you might have to cut a roll down. Hopefully the 2<sup>nd</sup> due truck will be assigned to the rear, if so, you will almost always need it back there. Window bars, gates and possibly tough doors will impede your entry. It's a must for 2<sup>nd</sup> due truck.

**The Roof FF** has to get to the roof. You need to know the construction type *before* going up. You can either check the MDT or go a few stores down that's clear pop a tile and take a look, you may be able to see it. Just be careful because you could have a mixed bag of steel in one store and wood frame in the one next to it from additions and or previous fires. If you don't know, ask the IC or ask the IC to ask dispatch. Your best way to the roof may not always be in the front of the store due to a parapet that can be 10' or more in height. If you have a long strip (think Mayfair) you may again, have to take a portable and go 4 or 5 stores down where it's clear and go through with your ladder and saw. It's going to suck but it is what it is. Maybe you get the OV to go with you and take the saw, but he may be carrying his own if he so desires. Or you may have to wait until the stick or bucket goes up and use the parapet ladder when you get up there. Once up there, identify your escape routes off, have multiple. Give a good report to the IC (fire location if known, hazards such as large HVAC units etc). Sound the roof as you go. If it is steel truss with Q-deck, you'll never get a hole big enough to make a difference in time and the collapse potential is very high. If this the case and the IC doesn't know, you need to make him aware immediately. Do what you can, maybe pop skylights or vents that are in place, and get the hell off that roof.

**Get To the Rear!** The OV must get to the rear with his tools as quickly as possible. Once again in a large strip you may have to go down a few stores down and go through rather than walk around. The tool assignment is going to be different for a taxpayer. I'm bringing a maul and a set of irons. You need to give a solid report to IC on conditions and possible hazards and or impediments to opening it up. You MUST get the rear opened ASAP. There may be window bars (which is what the maul is for, to attack the brick and block they are mounted in) and a heavily reinforced door, there could even be a roll down. Get started and get what you can get done before the 2<sup>nd</sup> due truck arrives with more manpower. When you get it opened up, let everyone know via radio. You can even dip in (not too deep) and see if you can get a fire location, maybe a possible victim, you never know. When those tasks are complete, start working on the adjacent exposures, doing the same tasks, hopefully now with the 2<sup>nd</sup> due OV.

**There is so much more to these types of fires that can be discussed that just wont fit on this page. Taxpayer and commercial fires are high risk low frequency events. If you want to know more, talk to guys like Richie Myers, Larry Schneckenberger, and/or Ed Monahan. Those guys were going to taxpayer fire while some of you young guys were still kicking slats out of your crib. They have been to a million and are a great resource. Ask them, they'll be more than happy to tell you about the things they know, have seen and talk about the many tricks of the trade regarding these types of fires...**

**Stay Safe and Keep Training**

**This week's edition written by Joe Digiose**







## COMMAK FIRE DEPARTMENT



### “Back to Basics Training Bulletin”

#### **Truck Series: Taxpayers - Roof Work**

Operating at a taxpayer presents many problems not immediately inherent in PD fires, however the jobs are still the same, they just need to be accomplished in different ways. The first due truck is almost always going to be assigned the front of the building because the OIC is going to want the fire store and at least one exposure on each side forced open. The roof man needs to get to the roof as quickly as possible. If you know you have a high parapet wall, the bucket or stick may be your best option using the ladder up there to get down over the parapet wall. When using a ground ladder, do not place the ladder in front of the fire store, go to an exposure. You don't want the ladder impeding the stretch or the advance of the line. Once up there size it up as you get to the rear. Figure out where the fire is, maybe there's some soft melted tar or a discolored area of tar. Identify any hazards ie. Large A/C units, parapet walls etc. Look for fire walls and identify your second/third means of egress off the roof. Size up the entire roof. This should be done while looking for the fire. If possible, identify the construction, whether or not it's a wood or metal roof. Get all the way to the rear and look over the side. If the OV hasn't gotten back there yet to give a report, or conditions have changed since the OV's report, add these conditions to your roof report to the OIC. Most taxpayer fires are going to start in the rear or basement but could be anywhere. In a laundromat, it could be anywhere as well, and it will already be in the cockloft due to lint filled ductwork throughout. Fires in cocklofts will spread unimpeded from firewall to firewall, if present, very rapidly no matter the occupancy. Start cutting! Getting a properly placed hole could be the difference in whether or not you have a backdraft or smoke explosion. Not all roofs are created equal. A metal Q-Deck roof is going to take a long time to get through. You may not even get through it in time. If its metal, start small, 3X3 and expand as rapidly as you can. A metal roof, along with any type of truss is something that should be immediately relayed to the OIC. Trench cuts, unless you have 15 saws and an hour to do so, will not be possible on a metal roof. No matter what type of roof you have, cutting it will not be as easy as cutting a roof on a PD. The tar, especially if you have a few layers will bind the blade. I would not pick the cutters edge as my first saw on the roof. The rotary saw with the blade bag is your best bet. This is why knowing how to efficiently change a blade is extremely important. Doing it on the apparatus floor and doing it on a smokey roof at 3am are two completely different animals. Older taxpayers will likely have a wood roof, but some places like Mayfair and NY Sports club have some sections that are steel due to previous fires or add on construction, and the older sections will still be wood. This information can be found in the MDT but if the officer misses it, then the only way to find out is by drilling and or taking a look above the ceiling tiles at bullshit alarms there. I cannot stress enough, the importance of this. Ask yourself the following questions. Where's the basement entrance? What's the construction? What's my best roof access? What's the fire load? Is there a parapet wall? What's the rear like? What do I need for forcible entry front/rear? Where would I tie off my search rope? Anything you can think of for your own personal data base in your head that you can call upon in the future is crucial.

The bottom line is, knowing these buildings/stores is going to put you one, two steps ahead of the game so that hopefully it makes your job much more efficient. Efficiency equals speed and speed could be the difference in whether or not the fire has a successful out come...

**Stay Safe and Keep Training...**

*This week's edition written by Joe Digiose*



Written: 9/2022

Version #1

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

Revision #: \_\_\_\_\_

Date: \_\_\_\_\_

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# Commack Fire Department

## Training Division



<b>Badge#</b>	<b>Name:</b>
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<b>Date</b> _/_/___
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### Ladders

TASK	Pass	Fail	COMMENTS
<b>Arms Length Carry</b>			
Takes position on same side of ladder			
Kneels on same side facing butt			
Place ladder on edge			
Gives order to lift ladder			
Lift ladder until at arm's length			
<b>TASK</b>			
<b>Two Person Beam Raise</b>			
Position ladder butt under window			
Communicates with partner			
Controls ladder during raise			
Positions fly section out			
Positions tip at window sill			
Checks for proper climbing angle			
<b>TASK</b>			
<b>Climbs Ladder and Enters Window</b>			
Positions hands on beams			<b>PASSED ALL SKILLS</b>  <input type="checkbox"/>
Checks ladder locks			
Ascends ladder with tool			
Maintains contact with ladder			
Performs leg lock			
Demonstrates use of tool while using leg lock			
Checks floor for stability			
Enters window in a safe and controlled manner			

Evaluator:	Signature
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# COMMACK FIRE DEPARTMENT TRAINING DIVISION



## Practical Skills Checklist Saws/Roof Operations

<b>Name:</b>	<b>Badge:</b>	<b>Date:</b>
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<b>Task: Saws Flat Roof</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
Starts rotary saw on the ground, lets it run and warm up		
Turns saw off before ascending ladder		
Ascends ladder with saw in proper position		
Sounds roof before stepping off ladder		
Sounds roof as they traverse roof		
Restarts saw		
Positions themselves upwind (if possible)		
Performs 7,9,8 cut in proper order		
Grounds saw		
Uses hook to pry up roof deck		
Uses hook to push down ceiling		

<b>Comments</b>





<b>Task: Saws Peaked Roof</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
Starts Stihl rescue chain saw on the ground, lets it run and warm up		
Hits brake on saw		
Ascends ladder in proper position with saw running, brake on		
Sounds roof before stepping off ladder		
Sounds roof as they traverse roof		
Takes brake off saw		
Positions themselves upwind (if possible)		
Performs 7,9,8 cut in proper order		
Reapplies brake on saw and sets down in a safe position		
Uses hook to pry up roof deck		
Uses hook to push down ceiling		

<b>Comments</b>


<b>Evaluator:</b>	<b>Date:</b>
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<b>Overall Performance</b>	<b>Satisfactory</b>	<b>Unsatisfactory</b>
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