FIRE INSTRUCTOR I

Student Presentation Lesson Plan

7-Ground Ladder Placement

Outline of Instruction

Objective

Upon successful completion of this lesson, the student shall be able to:

- Explain considerations taken when selecting, lifting, and lowering a ladder. [NFPA® 1001, 5.3.6, 5.3.11, 5.3.12]

Instructor Directions

1. Set up non-projectable training aids
    a. Chart pad to include:
        i. Title Page
        ii. Acronym
        iii. Summary
        iv. 1 Application scenario
        v. 2 Evaluation questions
2. Set up projectable training aids (LCD projector & computer)
3. Present lecture utilizing this outline of instruction, non-projectable and projectable audio visual aids.
    a. Overall time 18 min. (set up, present topic, and take down of audio visuals)
    b. Presentation time 8-12 min. (presentation time is part of the 18 min)
4. Breakdown of projectable training aids.

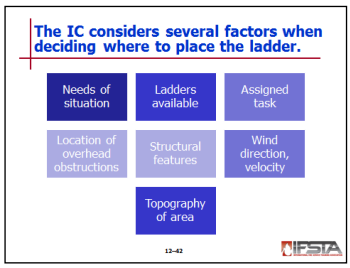
Reference Stowell, F.(2013). Essentials of Fire Fighting and Fire Department Operations (6th ed.). Upper Saddle River, N.J.: Brady Pub.; ISBN# 978-013-314080-4

Preparation

Introduction

- Instructor introduction
- Objectives
- Preparation Step

Presentation



Ladder Selection

Incident Commander (IC), supervisor will usually tell which ladder to use, where to place ladder

Factors to consider when deciding where to place ladder

Needs of situation

Ladders available

Assigned task

Location of overhead obstructions

Structural features

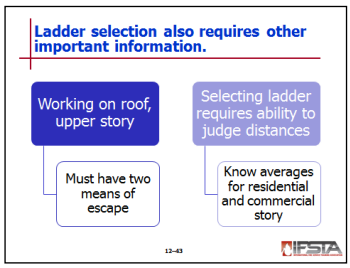
Type of roof

Wall height

Presence of overhangs

Wind direction, velocity

Topography of area



Personnel working on roof, upper story – Must be two means of escape

Two ladders at remote locations from one another

May be ground ladders or aerial devices

Selecting ladder to reach specific point requires ability to judge distances

Base of ladder – When placed approximately one-quarter of vertical distance from ground to point of contact on wall provides optimum climbing angle of 75 degrees

Residential story averages 10 feet (3 m) – floor to windowsill averages 3 feet (1 m)

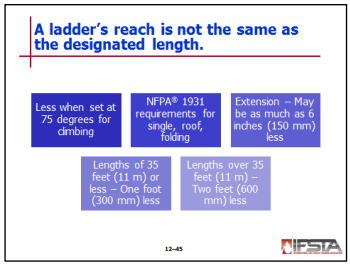
Commercial story averages 12 feet (4 m) – floor to windowsill averages 4 feet (1.2 m)

Guidelines for ladder length

Extend ladder – minimum of three to five rungs – beyond roof edge to provide footing, handhold

Place tip of ladder even with top of window and to windward (upwind) side to gain access to narrow window, for opening window for ventilation

Place tip of ladder just under windowsill when rescue from window to be performed



Designated length is NOT ladder's reach

Ladders set at angles of 75 degrees for climbing – reach is less than designated length

Single, roof, and folding ladders meeting NFPA® 1931 required to have measured length equal to designated length

Extension ladders – Maximum extended length may be as much as 6 inches (150 mm) less than designated length

For lengths of 35 feet (11 m) or less, reach approximately one foot (300 mm) less than designated length

For lengths over 35 feet (11 m) or less, reach approximately two feet (600 mm) less than designated length

Chart Pad:

Title Page

- Name, Department, Title of Presentation

Acronym

- **L.I.P.** (**L**ife Safety, **I**ncident Stabilization, **P**roperty Conservation) instructor relates these priorities to the lecture

Summary (2-4 key points)

- Instructor reviews 2-4 key points of the lesson plan to clarify uncertainties, prevent misconceptions, increase learning and improve retention

Application (1 scenario)

- The student is given a scenario where the student will apply all of the knowledge that was given in the lecture. *This is not a question*, it is merely the explanation of the scenario.

Evaluation (2 questions)

- Instructor should ask students 2 direct questions that were presented during the lesson. *Answer to the questions must be give after asking the question.*