

The goal is to equip
your *Program Manager*
to implement program
with:

1. an understanding of
why it is important
 2. an overview of
program
components
 3. guidance on how to
implement it
- * designated by your
department

Stepladder Safety Training

Program Overview and
Instructions on Implementation

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About the MIA Stepladder Safety Program

This is a one stop shop!

It provides all the guidance, tools, training, and resources to implement or enhance a stepladder program.

Much of the framework can be adapted to an extension ladder program.

See the resources section for extension ladder training and guidance.

Why do you need a Ladder Safety Program?

THE NUMBERS SPEAK FOR THEMSELVES



Do you know how ladders affect everyone?

500,000+

People treated for ladder-related falls each year

300+

Death from ladder falls each year

\$24 B

Annual expenses to US for work loss, medical, legal, liability

Do you know how much ladder accidents are costing you?

\$17.1 B

17.1 Billion spent on workplace falls from working at heights

Top 3

Falls are in top 3 most common disabling workplace injury

#6

Ladders are #6 on OSHA's Top 10 Most Cited Violations List

by the American Ladder Institute

Ladder Hazards (OSHA–Construction)

Although the following hazards have been identified by OSHA for the construction sector,

most are also extremely common in the general industry sector.

Ladder Hazards (OSHA–Construction)

- 1. Damaged stepladder**
- 2. Stepladders on slippery or unstable surface**
- 3. Unlocked stepladder spreaders**
- 4. Standing on the top step or top cap**

Ladder Hazards (OSHA–Construction)

5. Loading stepladder beyond rated load



6. Using stepladders in high-traffic location

7. Reaching outside stepladder side rails

8. Stepladders used in close proximity to electrical wiring/equipment

OSHA Requirements

**OSHA Standard 1910.23(b)(9)
for Walking Working Surfaces
requires a ladder inspection:**

- Before initial use in each work shift**
- More frequently as necessary to identify any visible defects that could cause employee injury**

MIIA's

***Stepladder Safety
Program***


Program Components

1. Document – *Stepladder Advisory* provides:

- Information on why ladder safety is a priority for employers
- a summary of best practices for the employee.

MIIIA RISK MANAGEMENT ADVISORY - STEPLADDER SAFETY FOR MUNICIPAL WORKERS

THE NUMBERS SPEAK FOR THEMSELVES - AMERICAN LADDER INSTITUTE



Do you know how ladders affect everyone?	
500,000+	People treated for ladder-related falls each year
300+	Death from ladder falls each year
\$24 B	Annual expenses to US for work loss, medical, legal, liability

Do you know how much ladder accidents are costing you?

\$17.1 B	17.1 Billion spent on workplace falls from working at heights
Top 3	Falls are in top 3 most common disabling workplace injury
#6	Ladders are #6 on OSHA's Top 10 Most Cited Violations List

PREVENTION BEST PRACTICE

PREPARATION

- Select correct ladder – type (e.g., nonmetal near electrical), height, size, and duty rating.
- Inspect the ladder for dirt, corrosion, missing pieces, cracked or broken parts, etc.
- Inspect shoes for clogged treads or slippery substances that could cause you to slip.
- Check how you feel and don't climb if feeling dizzy or tired, in a hurry, or very stressed.
- Check weather if using outside and don't use if wind or weather conditions pose risk.
- Check the surface to ensure it is level, stable, non-slippery, and free of clutter.

LADDER SET-UP

- Position it away from doors/traffic areas. If needed, lock the doors and/or use barriers.
- Place it close to the work and open the spreaders all the way into a locked position.
- Weigh your supplies and equipment to ensure you do not exceed the duty rating.

SAFE USE

- Carry your tools on a belt, use a hoist, or have someone hand them to you.
- Face the ladder and climb on and grip the rungs (not side rails).
- Keep your body in the middle of the rails for stability.
- Climb no higher than the second step from the top cap.
- Reposition the ladder to prevent overreaching.
- Remove and tag damaged ladders with an "Out of Service" tag and contact supervisor.

2. Program Summary & Instructions

A. Document – *Read First! Program Summary and Instructions – MIIA Stepladder Program* – provides:






- An overview of program components
- A memo to the Program Manager on how to implement the program

Instructions to the Program Manager Supervising the Ladder Safety Program	
MEMO	
To:	Program Manager for the Ladder Safety Program
From:	
Date:	
RE:	Ladder Safety Program Responsibilities
<hr/>	
Purpose of this Memo - This memo provides you with guidance to implement the MIIA Stepladder Safety Program. Although this program is for stepladders, it can be adapted to other types of ladders.	

2. Program Summary & Instructions

B. Document – *Work Practices* – specifies employee responsibilities and work practices:

- Selection

TYPE:	TYPE IAA	TYPE IA	TYPE I	TYPE II	TYPE III
LOAD CAPACITY:	375 pounds	300 pounds	250 pounds	225 pounds	200 pounds
RELATED USE:	Special Duty Professional Use	Extra Heavy Duty Industrial Use	Heavy Duty Industrial Use	Medium Duty Commercial Use	Light Duty Household Use
					



- Five Rules of Ladder Safety for Use

- Maintenance and Storage



2. Program Summary & Instructions

C. Document – *MIIA Ladder Safety Program Log – Ladder Inventory, and Employee Use and Training*

for Program Manager to track ladder types, use, storage location, and status of training.

Stepladders:

1. metal, fiberglass, wood, _____ height, _____ duty rating

Approved Uses: _____ Storage Location: _____

Employee Ladder Use and Training

The following employees use ladders and are involved with this program:

Employee Name	Position	Types of Ladders Used	Types of Ladders Trained On	Training Dates

D. Inspection Program

- i) *Inspection Procedure* – provides instructions on:
- frequency of inspection
 - how to use the inspection forms
 - how to document inspection and any mitigation measures
 - how to take a ladder out of service

D. Inspection Program

ii) Stepladder Inspection Forms

MIA Stepladder Safety Program—Inspection Checklist Sheet 1
Check off problems below and provide details on Sheet 2

Inspector: _____ Ladder #: _____ Height: _____
Date Inspected: _____ Sheet 2 completed: no, yes, N/A no problems

Ladder Type
 Fiberglass
 Wood
 Aluminum

Ladder Duty Rating:
 I (Heavy Duty)
 II (Medium Duty)
 IAA (Extra Heavy Duty)
 IA (Extra Heavy Duty)
 III (Heavy Duty)

Top Cap
 missing
 cracked or loose
 greasy or slick
 other: _____

Top Step
 cracked, gouged or bent
 separated from feet
 chipped or sharp edges
 holes, dents, or splits
 other: _____

Front Side Rails
 cracked, gouged or bent
 separated from feet
 chipped or sharp edges
 holes, dents, or splits
 other: _____

Steps/Rungs
 missing
 worn
 loose
 not secured to rail
 dirty, greasy
 broken, bent or dented
 gouges, holes or splits
 other: _____

Shoes/Feet
 missing
 grip not solid
 dirt caked
 worn no more than 1/16th of pads
 cracked or loose
 other: _____

Rear Support
 cracked
 warped or bent
 not attached
 other: _____

Label
 missing
 unreadable
 other: _____

Locking Spreader Bars
 hinges are loose or not secure
 locking mechanisms not intact
 missing rivets
 other: _____

Rear Braces
 broken
 bent
 not attached to rails
 other: _____

Rung Bracing
 broken
 bent
 not attached to rails
 other: _____

General
 muddy, greasy
 missing parts
 rusty, corrosion
 the front and back legs are not the same length

MIA Stepladder Safety Program —Inspection Checklist Sheet 2
Provide detail on problems identified on Sheet 1

Inspector: _____ Ladder #: _____
Date Inspected: _____ Tagged & Taken Out of Service: no, yes-date: _____

Top Cap
 • _____
 • _____

Rear Support Legs
 • _____
 • _____

Top Step
 • _____
 • _____

Label
 • _____
 • _____

Front Side Rails
 • _____
 • _____

Locking Spreader Bars
 • _____
 • _____

Steps/Rungs
 • _____
 • _____
 • _____

Rear Braces
 • _____
 • _____
 • _____

Rung Bracing
 • _____
 • _____

Shoes/Feet
 • _____
 • _____

General
 • _____
 • _____

D. Inspection Program

Employee Inspection Follow-up

iii. Ladder Inspection Tracking Log

Whenever an employee inspects the ladder, they must:

- Complete the log
- Note their action (e.g., use, clean, or send for repair or disposal)

MIIA Stepladder Safety Program – Inspection Tracking Log			
Instructions:			
1. Please print all information.			
2. Inspect all stepladders prior to use using Stepladder Safety Forms A and B, and complete sections below based on outcome of inspections.			
3. Immediately notify your supervisor if a ladder needs to be taken out of service. Tag the ladder with a “Danger, Equipment Taken Out of Service” tag.			
4. Maintain this log on file and submit a copy or make available for review upon request.			
Name of Inspector	Date Inspected	Pass or Fail	Action
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal
		<input type="checkbox"/> Pass, <input type="checkbox"/> Fail	<input type="checkbox"/> Used <input type="checkbox"/> Tagged and taken out of service for: <input type="checkbox"/> Cleaning, <input type="checkbox"/> Repair, <input type="checkbox"/> Disposal

D. Inspection Program

Employee Inspection Follow-Up

iv) Out of Service Tag

When it doesn't pass inspection or is damaged:

- Post this tag on ladder
- Take it out of service
- Place it a location where it will not be used
- Contact their supervisor, who will have a “competent person” destroy it

Danger

Equipment

Taken Out of Service:

To be Cleaned

To be Repaired

To be Disposed of or Destroyed

Other:

Date Taken Out of Service: _____

Person taking unit out of service: _____

Instructions:

1. Tape or tie tag to unit.
2. Locate unit where it will not be accessed for use.
3. Contact your supervisor.

D. Inspection Program

Program Manager – Inspection Follow-Up

Remove ladders taken out of service:

- Repair, or
- Destroy – Ladders must be destroyed prior to disposal to be sure they will not be salvaged



3. Training Program

A. Document – *MIIA Ladder Safety Training Program Summary:*



- lists responsibilities of a Program Manager
- provides links to trainings and training quizzes
- provides instructions on how to use the training resources

3. Training Program, Continued

- B. Document – *Ladder Safety Training Program Overview* (this PPT) – an overview of the program to provide to Program Manager
- C. Document – *Stepladder Safety Training Quiz* – optional (there is also an online quiz by the American Ladder Institute listed in document *MIA Ladder Safety Training Program*)

MIA Stepladder Safety Training Quiz	
Name - please print: _____	Date: _____
Instructions: Turn it in to _____ by _____ to get credit for the training.	

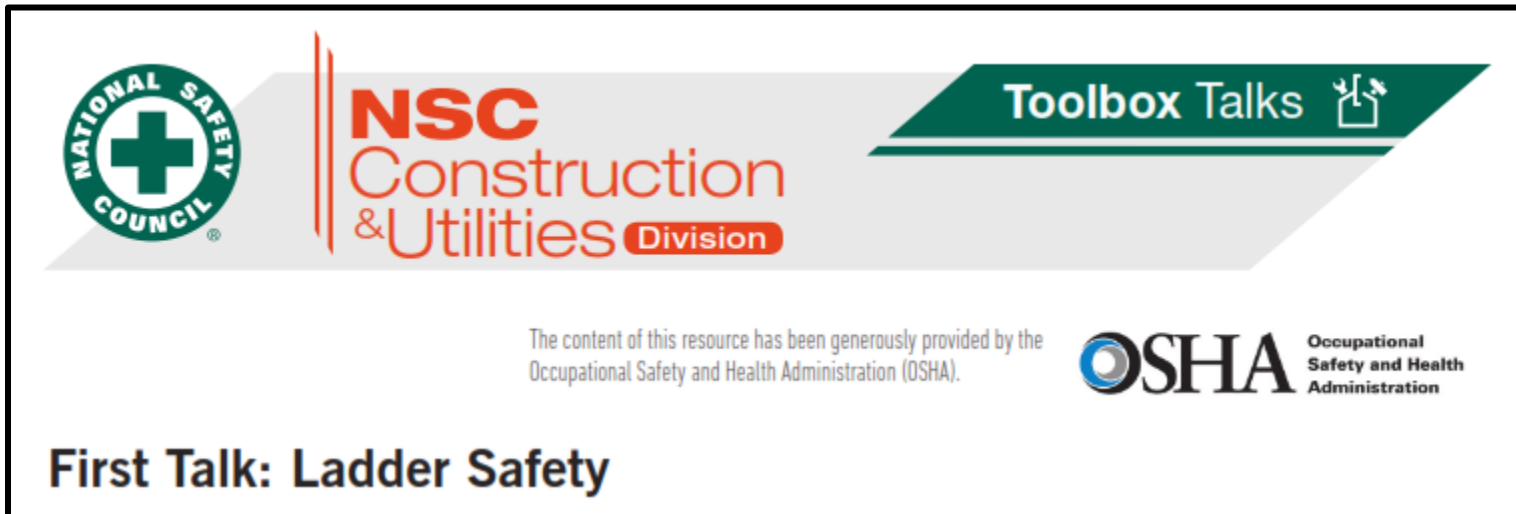
4

Take the Safety Test

Successfully complete the final safety test to earn your certificate of completion. Share your scores with your friends or Training Manager.

3. Training Program, Continued

D. Doc – *Toolbox Talk by the National Safety Council* – optional:



The banner features the National Safety Council logo on the left, which consists of a green cross inside a white circle with the words "NATIONAL SAFETY COUNCIL" around it. To the right of the logo is the text "NSC Construction & Utilities Division" in orange and red. Further right is a green arrow-shaped graphic containing the text "Toolbox Talks" and a small icon of a hand holding a tool. Below these elements is a line of text: "The content of this resource has been generously provided by the Occupational Safety and Health Administration (OSHA)." To the right of this text is the OSHA logo, which includes the letters "OSHA" in a bold, sans-serif font and the full name "Occupational Safety and Health Administration" in a smaller font below it. At the bottom left of the banner, the text "First Talk: Ladder Safety" is displayed in a bold, dark blue font.

NATIONAL SAFETY COUNCIL

NSC
Construction
& Utilities **Division**

Toolbox Talks

The content of this resource has been generously provided by the Occupational Safety and Health Administration (OSHA).

OSHA Occupational Safety and Health Administration

First Talk: Ladder Safety

4. Resources

A. Internet Resources

i. Ladder Safety App by NIOSH – document provides links to free app, which provides:

- an angle measuring tool that sets an extension ladder at the proper angle
- information on use of extension ladders and stepladders



<https://www.cdc.gov/niosh/falls/ladder/ladder-safety-app.html>

4. Resources

A. Internet Resources

ii. MIIA Additional Resources for Ladder Safety

– links to resources:


- **Massachusetts Department of Labor Standards**
- **Center for Construction Research and Training**
- **American Ladder Institute**
- **National Safety Council**
- **OSHA documents**

4. Resources

B. OSHA Quick Cards


OSHA[®] QUICK CARD[™]

Portable Ladder Safety



Falls from portable ladders (step, straight, combination and extension) are one of the leading causes of occupational fatalities and injuries.

- Read and follow all labels/markings on the ladder.
- Avoid electrical hazards! – Look for overhead power lines before handling a ladder. Avoid using a metal ladder near power lines or exposed energized electrical equipment.
- Always inspect the ladder prior to using it. If the ladder is damaged, it must be removed from service and tagged until repaired or discarded.



3-Point Contact

- Always maintain a 3-point (two hands and a foot, or two feet and a hand) contact on the ladder when climbing. Keep your body near the middle of the step and always face the ladder while climbing (see diagram).
- Only use ladders and appropriate accessories (ladder levelers, jacks or hooks) for their designed purposes.
- Ladders must be free of any slippery material on the rungs, steps or feet.

i. Portable Ladder Quick Card

OSHA[®] FactSheet

Reducing Falls in Construction: Safe Use of Extension Ladders

Workers who use extension ladders risk permanent injury or death from falls and electrocutions. These hazards can be eliminated or substantially reduced by following good safety practices. This fact sheet examines some of the hazards workers may encounter while working on **extension ladders** and explains what employers and workers can do to reduce injuries. OSHA's requirements for extension ladders are in Subpart X—Stairways and Ladders of OSHA's Construction standards.

What is an Extension Ladder?

Also known as "portable ladders," extension ladders usually have two sections that operate in brackets or guides allowing for adjustable lengths. (See Figure 1, below) Because extension ladders are not self-supporting they require a stable structure that can withstand the intended load.

PLAN Ahead to Get the Job Done Safely.

- Use a ladder that can sustain at least four times the maximum intended load, except that each extra-heavy duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. Also acceptable are ladders that meet the requirements set forth in Appendix A of Subpart X. Follow the manufacturer's instructions and labels on the ladder. To determine the correct ladder, consider your weight plus the weight of your load. Do not exceed the load rating and always include the weight of all tools, materials and equipment.
- A competent person must visually inspect all extension ladders before use for any defects such as: missing rungs, bolts, cleats, screws and loose components. Where a ladder has these or other defects, it must be immediately marked as defective or tagged with "Do Not Use" or similar language.
- Allow sufficient room to step off the ladder safely. Keep the area around the bottom and the top of the ladder clear of equipment, materials and tools. If access is obstructed, secure the top of the ladder to a rigid support that will not deflect, and add a grasping device to allow workers safe access.
- Set the ladder at the proper angle. When a ladder is leaned against a wall, the bottom of the ladder should be one-quarter of the ladder's working length away from the wall. For access to an elevated work surface, extend the top of the ladder three feet above that surface or secure the ladder at its top.
- Before starting work, survey the area for potential hazards, such as energized overhead power lines. Ladders shall have

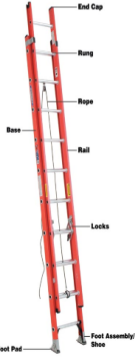


Figure 1: Extension Ladder

ii. Extension Ladder Fact Sheet

4. Resources

C. Posters from American Ladder Institute

Printing and posting the following posters is optional.

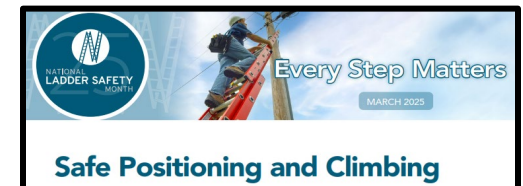
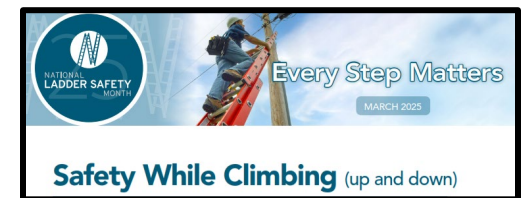
This information is covered in the work practices and the posters are a tool to reinforce them:

i. Safety While Climbing

ii. Choosing Your Ladder

iii. Safe Climbing & Positioning

iv. Ladder Safety Checklist



Program Implementation for Program Managers

1. Conduct an assessment – determine:
 - who uses ladders and what they are using them for – use *Ladder Safety Program Log*
 - what ladders they are using and whether they are appropriate for current uses
 - the condition of these ladders, and whether they need to be repaired or replaced
 - the location and method of storage
 - if users need training – use *Ladder Safety Program Log*

2. Develop or Enhance Program

Determine Ladders Needed

Purchase ladders rated for the work they will be used for:



See the *Stepladder Safety Fact Sheet* for formulas to determine a ladder's:

- 1) weight load
- 2) duty rating

Develop or Enhance Program

- Designate a storage location and method
- Provide training on use, inspection, storage, maintenance, and taking out of service (see *MIIA Stepladder Safety Training Program Summary*):
 - Identify employees to train
 - Provide program documents – MIIA Stepladder Safety Program – Work Practices, inspection form/log, out of service tag
 - Track training completion
- Post posters (optional)
- Review inspection logs and take ladders out of service for repair or destruction as needed