# Section W-1

# Ladder Safety Program

4/19

# **1.0 Purpose and Scope**

The use of ladders presents significant workplace hazards. The Center for Disease Control and Prevention states that 43% of fatal falls in the last decade have involved a ladder. Among workers, approximately 20% of fall injuries involve ladders.

Unsafe ladder use, such as using the wrong kind of ladder or upsetting the ladder's balance by leaning too far from its center of gravity, has resulted in a multitude of injuries.

The SIPE department of Safety & Risk Management has developed this program to support the Santa Barbara County of Education Districts as a means to describe all aspects of ladder safety including a ladder safe- use policy, personnel accountability, hazard assessment and proper ladder selection, safe work practices, training requirements and record keeping.

This program applies to any use of ladders three (3) feet in height/length or greater by employees of the Santa Barbara County Education Districts as part of their normal work activities. This includes temporary employees and Volunteers.

## 1.1 regulatory Standards and Reference

Cal-OSHA: 1629-Stairways and Ladders

1675-Ladders, General1678- Extension Ladders3276 - Portable Ladders3277- Fixed Ladders3278 - Use of Fixed Ladders3279 - Portable Metal Ladders3280 - Portable Reinforced Plastic Ladders3287 - Ladders; Window Cleaning

## **1.2 Other Resources**

<u>American Ladder Institute</u>

# 2.0 Administrative Duties & Responsibilities

# 2.1 Santa Barbara County Education Office

The ultimate responsibility for establishing and maintaining effective policies regarding environmental health and safety issues specific to Santa Barbara County School districts facilities and operations, rests with the Superintendents of each school district. General policies which govern activities and responsibilities under the Injury and Illness Prevention Program are thereby established under the County of Santa Barbara Education Office/SIPE Safety.

Because of the wide diversity of operations within the Santa Barbara County Schools and the necessary differences in organizational structure within various departments, it is recognized that certain responsibilities and expressed procedures in this program cannot be equally applied. There are, therefore, some details which might be impossible or impractical for one department chair or department head to implement as directed while another would have no difficulty in applying these procedures to everyone. Departments will, therefore, have some latitude in formulating and implementing alternative methods when necessary, as long as the total Injury and Illness Prevention Program objectives are not compromised. The Santa Barbara County Education office/SIPE Safety and Risk Management will provide assistance to campus departments seeking to implement alternate procedures.

# 2.2 Santa Barbara County Education Office/SIPE Safety

It is the responsibility of SIPE to develop, maintain, and administer oversite of the Injury and Illness Prevention Program. Further responsibilities are outlined below:

- Develop, implement and maintain the Ladder Safety Program.
- Provide consultation to Department Supervisors, Directors, Chairpersons, and Coordinators regarding program compliance, including but not limited to issues of hazard identification and evaluation, procedures for correcting unsafe conditions, systems for communicating with employees, holding regularly scheduled safety meetings, providing employee training programs, regulatory compliance strategies, and recordkeeping.
- Provide centralized monitoring of county education districts-wide activities, on a consultative basis, in the areas of safety, chemical hygiene, emergency preparedness, fire safety, hazard communication, hazard identification, hazardous materials

management, industrial hygiene, occupational safety, pest management, public health and sanitation, risk management, and safety education and training.

- Maintain centralized environmental and employee monitoring records, allowing employee access as directed by law.
- May provide training and periodic audits to assist Districts and their departments in Ladder Safety Program compliance
- Develops and maintains the Ladder Safety Program and makes it available to all employees upon request.
- Collaborates with districts to determine risk potential when using ladders.
- Assists departments in training, selecting materials, and developing compliance guidelines.
- Periodically evaluates the Program to determine the effectiveness of the Program and updates as necessary.

# 2.3 Superintendents, Directors, Department Chairs, Department Heads

It is the responsibility of Superintendents, Directors, Department Chairs and Department Heads to develop departmental procedures to ensure effective compliance with the Injury and Illness Prevention Program and other SIPE health and safety policies as they relate to operations under their control. Specific areas include employee and student education and training, identification and correction of unsafe conditions, and recordkeeping.

Specifically, these individuals will:

- Develop or adopt written departmental procedures and ensure that each supervisor adheres to adopted procedures.
- Develop or adopt and implement an education and training program designed to instruct employees and students in general safe work practices as well as instructions specific to their job duties. Such education and training shall take place prior to the employee or student being assigned to potentially hazardous employment.
   Instruct or seek instruction for employees and students in the recognition and avoidance of unsafe conditions, including hazards associated with non-routine tasks and emergency operations. Permit only those employees or students qualified by training to operate potentially hazardous equipment. Do not assume that newly hired, newly assigned or reassigned employees or students comprehend all safety procedures associated with the new job duties.
- Develop and maintain a system of recordkeeping to document all employee education and training activities, including a system of sharing such records with the SIPE Safety

Office. Such records should include, but not be limited to, employee and student injuries, incident reports, and complaints or grievances involving safety issues.

- Develop and maintain an inventory of hazardous materials present in all work areas within the department.
- When ordering suspected hazardous materials or equipment, request on the Requisition Form an SDS (where one is not already available) or equipment safety procedure.
- Post in a conspicuous location appropriate safety notices or procedures.
- Develop methods, as appropriate, to inform outside contractors' employees who work in areas under department jurisdiction of the hazards to which those employees may be exposed.

# 2.4 Principal Investigators and supervisors

It is the responsibility of Principal Investigators and Supervisors to:

- Develop local area procedures to ensure effective compliance with the Injury and Illness Prevention Program as it relates to operations under their control. Specific areas of responsibility include employee education and training, identification and correction of unsafe conditions, and record keeping.
- Develop and maintain written workplace procedures which conform to regulatory, campus and departmental guidelines.
- Ensure that each employee or contractor adheres to adopted procedures.

Instruct employees, visitors, and guests in the recognition and avoidance of unsafe conditions, including hazards associated with non-routine tasks and emergency operations. Permit only those persons qualified by training to operate potentially hazardous equipment or use hazardous materials. Ensure that newly hired, newly assigned or reassigned employees are properly trained in all safety procedures associated with new duties.

# 2.5 Employees (including Student Volunteers)

It is the responsibility of all employees to:

- Read and comply with procedures and guidelines provided by their supervisors.
- Inform their supervisors of workplace hazards without fear of reprisal.
- Attend established education and training sessions. They are expected to understand and comply with all applicable safety requirements. Failure to comply with established safety rules may be reflected in performance evaluations and may lead to disciplinary action consistent with procedures described in respective collective bargaining contracts, where applicable.

# 2.6 Ladder Users

- 2.6.1 trained on and applies "Ladder User's Safe-Work Rules" for ladder users as outlined in this program.
- 2.6.2 Always selects and uses a ladder in a safe manner.
- 2.6.3 Visual inspect prior to use.
- 2.6.4 Alerts Owner Department Management when ladders need repair/replacement.
- 2.6.5 Assesses work to determine if fall protection should be worn and seeks alternative access methods instead of ladders if need be.
- 2.6.6 Refuses to use a ladder if they think it is unsafe and instead uses a safer method such as scaffolding, aerial lift or bucket truck.

# 2.7 Ladder Owner's Department

- 2.7.1 Document monthly inspection and maintain all ladders in their control/ownership.
- 2.7.2 Render unusable and then dispose of any ladders that are not repairable.
- 2.7.3 Provide training to all personnel using their ladders as required by the "training" section of this program.
- 2.7.4 Keep/maintain attendance records of all training.
- 2.7.5 Assure ladder work-asks are evaluated for hazards and that work tasks requiring fall protection to be worn are identified.
- 2.7.6 Provide alternative access when a ladder user determines use of a ladder is unsafe due to required work tasks.

# **3.0 General Requirements**

The Department owning ladders designates the "Ladder Program Administrator(s)" responsible for the following actions:

- Assures that ladders purchased/used in the department are code-compliant and appropriate for the needed safe-work tasks.
- Consults with SIPE Safety as needed to assess proper ladder use and procurement specifications.
- Coordinates with SIPE Safety to provide ladder safety training, or provides ladder training themselves to all department personnel who use ladders. In either case, training must detail the contents of this program including ladder user's safe-work rules, inspections, etc.
- Periodically audits departmental compliance with the Program.
- Conducts ladder inspections as part of the "shop safety inspection" process.

- Implements the following ladder inspection/tracking requirements:
  - 1. Develops ladder-identification system and uniquely numbers each ladder owned by the department for inventory/tracking purposes.
  - 2. Inspects ladders for damage and documents inspections per inspection form/criteria in program.
  - 3. Locks or tags damaged ladders to insure they will not be used until repaired.
  - 4. Renders damaged ladders that cannot be repaired unusable by cutting them into pieces or other destructive means, and then assures proper disposal of them.
  - 5. Assures that any wooden ladders in use are not painted with any color other than clear wood sealer to allow detailed inspection of wood grain and quality. Wood ladders that are painted or not clear-finished with the wood grain visible for inspection must be destroyed.
  - 6. If not already done so by the manufacturer, mark portable metal ladders with the words:

# "CAUTION DO NOT USE AROUND ELECTRICAL EQUIPMENT"

## **3.1 Hazard Assessment**

Hazard controls & Protective Measures

The construction, installation, and use of ladders shall conform to <u>ANSI A14.1</u>, <u>ANSI A14.2</u>, <u>ANSI A14.3</u>, and <u>ANSI A14.4</u>, as applicable.

#### Length of ladders.

- 1. All portable ladders shall be of sufficient length and shall be placed so that workers will not stretch or assume a hazardous position.
- 2. Portable ladders, used as temporary access, shall extend at least 3 ft (0.9 m) above the upper landing surface. The length of portable stepladders shall not exceed 20 ft (6 m).

#### Width of ladders.

- 1. The minimum clear distance between the sides of individual rung/step ladders shall be 16 in (40.6 cm).
- 2. The minimum clear distance between side rails for all portable ladders shall be 12 in (30.4 cm).

#### Spacing of rungs, cleats, and steps on ladders.

- 1. On portable ladders, spacing of rungs shall be 8 in (20.3 cm)- 14 in (35.5 cm) on center and uniform.
- 2. On step stools, spacing shall be not less than 8 in (20.3 cm) or more than 12 in (30.4 cm) apart, as measured from their centerlines.
- 3. On extension trestle ladders, spacing on the base section shall be not less than 8 in (20.3 cm) or more than 18 in (45.7cm) apart, as measured from their centerlines. On the extension section, spacing shall not be less than 6 in (15.2 cm) or more than 12 in (30.4 cm) apart, as measured from their centerlines.
- 4. Ladders shall be surfaced so as to prevent injury to a worker from punctures or lacerations and to prevent snagging of clothing.
- 5. Wooden ladders **shall not** be coated with any opaque covering, except for identification or warning labels that may be placed on only one face of a side rail.
- 6. A metal spreader bar or locking device shall be provided on each stepladder to hold the front and back sections in an open position.

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- 11. Wooden ladders **shall not** be coated with any opaque covering, except for identification or warning labels that may be placed on only one face of a side rail.
- 12. A metal spreader bar or locking device shall be provided on each stepladder to hold the front and back sections in an open position

#### Set-up of ladders.

- 1. Ladders **shall not** be placed in passageways, doorways, drives, or any locations where they may be displaced by any other work unless protected by barricades or guards.
- 2. Portable ladders shall be used at such a pitch that the horizontal distance from the top support to the foot of the ladder will not be greater than <sup>1</sup>/<sub>4</sub> the vertical distance between these points.
- 3. Wooden job-made ladders, with spliced rails, shall be used at an angle such that the horizontal distance is 1/8 the length of the ladder.
- 4. Ladders shall be secured by top, bottom, and intermediate fastenings, as necessary to hold them rigidly in place and to support the loads that will be imposed upon them.
- 5. The steps or rungs of all ladders shall be set to provide at least 7 in (17.7 cm) toe space from the inside edge of the rung to the nearest interference.
- 6. The top of a non-self-supporting ladder shall be placed with the two rails supported equally, unless the ladder is equipped with a single support attachment.
- 7. Step-across distance. The step-across distance from the nearest edge of ladder to the nearest edge of equipment or structure shall be not more than 12 in (30.5 cm) or less than

2- 1/2 in (6.4 cm)

## Use of ladders.

1. Ladders shall be restricted to their intended use.

- Ladders shall be inspected for visible defects on a daily basis and after any occurrence that could affect their safe use. Broken or damaged ladders shall be immediately tagged "DO NOT USE," or with similar wording, and withdrawn from service until restored to a condition meeting their original design.
- 3. Ladders **shall not** be moved, shifted, or extended while occupied.
- 4. Ladders **shall not** be climbed by more than one person at a time, unless it is designed to be climbed by more than one person.
- 5. Portable ladders used as means of access to ascend and descend to a work location do not require fall protection, however only light work for short periods of time shall be performed on portable ladders.
- 6. No work requiring lifting of heavy materials or substantial exertion shall be done from ladders.
- 7. When ladders are the only means of access to or from a working area for 25 or more workers, or when a ladder is to serve simultaneous two-way traffic, double cleated ladders shall be used.
- 8. Portable ladders shall have slip-resistant feet.
- 9. The top of a stepladder, often known as a "Service Tray" **shall not** be used as a step unless it has been designed to be so used by the manufacturer.
- 10. Ensure latches are in place before climbing an extension ladder.
- 11. Keep loose tools off the steps and top platform. Job made ladders will be made in accordance with ANSI A14.4.
- 12. Single-rail ladders **shall not** be used.
- 13. Three-legged ladders may be used for specific tasks, if evaluate by SIPE Safety.

The use of ladder climbing devices shall be in accordance with 21.I. Articulated ladders are allowed if they meet ANSI A14.2 standard. Any ladder accessory, including but not limited to, ladder levelers, ladder stabilizers or stand-off devices, ladder jacks or ladder straps or hooks, that may be installed or used in conjunction with ladders must be installed and used per manufacturer's instructions.

# 3.2 Process Management

## 3.2.1 Ladder Safe Work Practices

• Select a ladder that is the proper length and "duty rating" for the intended work.



*Note:* A leaning-ladder must extend at least 36" above the edge of a roof/mezzanine when properly installed. A step ladder must be tall enough so that you don't have to stand on the top or top two rungs of the ladder to access your work.

- **Do not** use electrically conductive (e.g. aluminum) ladders for electrical work or near live electrical parts.
- Inspect the ladder for broken of defective parts prior to each use.
- Remove damaged or defective ladders from use and notify department management of the problem ladder.
- **Do not** place ladders where they can be accidentally struck or displaced.

If the ladder is used in an area where anyone could walk under it, the area must be cordoned off with a visual barrier such as yellow caution tape to alert pedestrians to the hazard of something falling from the ladder.

- Ladders must not be placed in passageways, doorways, driveways, or any location where they may be displaced by activities being conducted on any other work, unless protected by barricades or guards.
- For leaning or extension ladders, tie, block, or otherwise secure while in use.
- **Do not** splice ladders together.
- Always face the ladder while ascending and descending.
- **Do not** stand on the top two rungs of a single ladder or an extension ladder;
- **Do not** stand on the top cap and top two steps of a step ladder.
- **Do not** stand on the top three rungs of ladders unless there are members of an adjacent structure that provide a firm handhold, or the ladder user is protected by a personal fall protection system (e.g., positioning device or fall restraint system) tied off to a CalOSHA certified fall protection anchor.
- If working outside of the ladder's footprint, or when standing on the upper-most parts of the ladder as noted above, use an appropriate fall protection system as described in the SRM Safety Topic Guide "Fall Protection Equipment and Inspection".
- **Do not** place planks on the top cap or anyother part of a ladder.
- **Do not** use the X-bracing or other structures on the rear section of a stepladder for climbing unless the ladder is designed to be climbed from both sides. (See Extension Trestle Ladders and similar.)
- Make sure that a stepladder is properly set up and that the spreader is locked in place before use.
- **Do not** use the stepladder as a lean-to ladder.
- Always use a tool belt and other 'hands-free' carrying devices when ascending and descending a ladder.
- When working aloft, secure tools and supplies so they cannot fall from the ladder.

#### 3.2.2 Ladder Selection

Ladders are designed and constructed to safely hold up to a specified amount of weight. Ladders come in five (5) different Duty Ratings identified by their "Type". The Duty Rating is defined as the maximum safe load capacity of the ladder. A person's fullyclothed weight plus the weight of any tools and materials that are carried onto the ladder must be less than the duty rating.

SIPE Safety requires at minimum the strength of a "Type II" ladder for any work activities where ladders are used for elevated work projects where the user is not handling large or heavy objects during ladder usage.

All Maintenance/Trades are recommended to use "Type I" or stronger ladders for their work activities. Owner Departments that have maintenance/trades activities are required to purchase and use "Type I, Type IA or Type IAA" ladders based upon the required strength for safe work by their workforce.

#### 3.2.3 Duty Ratings

Duty Ratings are described in terms of pounds, such as a "300lb. Duty-Rated Type IA" ladder which is designed for extra heavy-duty professional use where the total weight on the ladder does not exceed 300 pounds.

Ladders are also built to handle the demands of various applications. For example, a ladder used frequently on a construction site by larger/heavier workers should typically be stronger and possess a corresponding higher duty rating than one used by a smaller/lighter-weight person for infrequent "light" overhead work.

The American National Standards Institute (ANSI) has established the "Duty Rating" that is used by Cal/OSHA. This rating identifies which portable ladder is intended for the conditions under which the ladder can be safely used. The Duty Rating system is summarized below:

Ladder Duty Rating or "Type"	Capable of Supporting	Rated Use
TYPE IAA	375 lbs.	Special Duty
ΤΥΡΕ ΙΑ	300 lbs.	Extra Heavy Duty Industrial
ΤΥΡΕ Ι	250 lbs.	Heavy Duty Industrial
TYPE II	225 lbs.	Medium Duty Commercial

Γ	TYPE III	200 lbs.	Light Duty Household
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# 3.3 Ladder Design & Use

Articulating, Combination, Multi	Extension Ladder	Extension Trestle Ladder
Position, or Sectional Ladder		
	A	
An articulating ladder is a non-self-	An extension ladder is a non-self-	A stepladder that is a self-supporting
supporting or self-supporting portable	supporting portable ladder, adjustable	portable ladder with an extension.
ladder, adjustable or non-adjustable in	in length. It consists of two (2) or more	They are available in "twin front" or
length. It consists of two or more	sections that travel in guides or	"double front" design so they can be
sections of ladder that may be combined	brackets, which are arranged to permit	climbed from both sides
to function a single ladder. The overall	length adjustment. An extension	
length of the assembled sections	ladder's size is designated by the sum of	
designates its size.	the lengths of the sections measured	They can be used for operations in
	along the side rails	theater and stage work or to get
		equipment above drop ceilings.
They can be used to access areas above	It cannot exceed 44 feet.	
uneven surfaces.		
	They can be used to access varying heights	
Fixed Ladder	Individual Rung Fixed Ladders	Platform Step Ladder, Single
		Entry Work Platform



A fixed ladder is a ladder permanently	A type of fixed ladder that does not	A step ladder with a small horizontal
attached to a structure, building or	have side rails. Each rung is permanently	platform at the top.
equipment.	attached to the surface of the wall,	
	machine, or piece of equipment.	
		These can be used to work safely at
The type of ladder shown is used to		elevated locations requiring the use of
access the top of facilities for	These ladders are used to access and	both hands.
maintenance purposes.	egress facilities such as manholes and	
	crawl spaces.	

Single Ladder	Specialty Ladders	Step Ladder
A	T	A
A single ladder is a non-self-supporting	Any type of ladder that is constructed	A stepladder (also known as an "A"
portable ladder, similar to an extension	for specific use on unique devices used	Frame ladder) is a self-supporting
ladder, non- adjustable in length, which	for research or any other purpose.	portable ladder. They are non-
consists of only one section. Its size is		adjustable in length, have flat steps
designated by the overall length of the		and a hinged back. They are measured
side rail and cannot exceed 30 feet.	<b>Example:</b> The ladder shown is a shelf	along the front edge of the side rails.
	ladder that is attached to or used to	They are available in "twin front" or
	access shelves. Another type of	"double front" designs so they can be
These can be used to access heights	"specialty ladder" is a rolling "Library	climbed from both sides.

within the limit of their height	Ladder" set on rails attached to shelving	These may be used to access heights within the limit of their height
Step To Straight Ladder	Tripod Industrial Ladder	Tripod Orchard Ladder
This type of ladder can convert quickly	Tripod Step Ladders are designed to be	Tripod orchard ladders are designed to
from a stepladder to a push- up	used in construction and maintenance	be used on soft and uneven terrain;
extension ladder. They are equipped	activities where a 4- leg step ladder	therefore they lack spreaders, locking
with rung locks, utility-style safety	would have limited access or require the	devices, steel points and safety shoes.
shoes, and a standard pole grip.	ladder user to work off to one-side of	These should only be purchased and/or
They can be used as either a self- supporting or non-self-supporting ladder	the ladder. These should be purchased/used for maintenance and construction work where a single pole leg can be placed amongst equipment or other obstructions and allow a safe-work for the ladder user to face the work area not having to work off to one side.	used for outdoor work in pruning and accessing tree canopies.



Used to secure the top of a single ladder	Ladder cages provide fall protection and	Weight sensitive brackets with casters
or extension ladder to a pole, pipe or	are required by code on fixed ladders	that allow a ladder to be rolled on a
other 'rounded' vertical support	over 20 feet high. The base of the cage	floor when there is no load on the
structure	must be at 7' above the base	ladder
	surface.	
Ladder Cinch	Ladder Jack	Levelers
Used as a quick tie down for use on	Attaches to rungs of non-self-	Two base attachments that are used to
poles or similar structures	supporting ladders to allow the use of	level the ladder on a sloped support
	ladders as supports for scaffold planks.	surface
	Fall protection is required	
Pail Shelf     Paint Can hangers		
Pail Shelf	Paint Can hangers	Removable Work Platform
Pail Shelf	Paint Can hangers	Removable Work Platform
Pail Shelf           Pail Shelf           A pail shelf attaches to an existing shelf	Paint Can hangers	Removable Work Platform
Pail Shelf           Pail Shelf           A pail shelf attaches to an existing shelf           to provide relatively stable locations	Paint Can hangers         Image: Are designed to be easily attached and removed from a ladder in order to hang	Removable Work Platform           Kicks out of the way easily for           climbing and is used as a platform to
Pail Shelf  A pail shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers Paint Can hangers Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as	Removable Work Platform Kicks out of the way easily for climbing and is used as a platform to stand on.
Pail Shelf           Pail Shelf           A pail shelf attaches to an existing shelf           to provide relatively stable locations           for tools and pails or bucket	Paint Can hangers Paint Can hangers Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for	Removable Work Platform Kicks out of the way easily for climbing and is used as a platform to stand on.
Pail Shelf Pail Shelf A pail shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers Paint Can hangers Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger.	Removable Work Platform Kicks out of the way easily for climbing and is used as a platform to stand on.
Pail Shelf Fail Shelf Pail Shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers  Paint Can hangers  Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger. They can be used to temporarily hang	Removable Work Platform Kicks out of the way easily for climbing and is used as a platform to stand on.
Pail Shelf Pail Shelf A pail shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers  Paint Can hangers  Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger. They can be used to temporarily hang other supplies or tools as long as they	Removable Work Platform Kicks out of the way easily for climbing and is used as a platform to stand on.
Pail Shelf Fail Shelf Pail Shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers  Paint Can hangers  Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger. They can be used to temporarily hang other supplies or tools as long as they are within the load limits	Removable Work Platform           Kicks out of the way easily for           climbing and is used as a platform to           stand on.
Pail Shelf Fail Shelf Pail Shelf attaches to an existing shelf to provide relatively stable locations for tools and pails or bucket	Paint Can hangers  Are designed to be easily attached and removed from a ladder in order to hang a bucket. There are load limits, as determined by the manufacturer, for both the ladder rail and the hanger. They can be used to temporarily hang other supplies or tools as long as they are within the load limits of the ladder and hanging bracket.	Removable Work Platform

Attaches to the ladder rungs or rails to	Made for straight or stepladders. The	
stand the ladder off from a surface or	texture is intended to provide a place to	
stabilize the ladder around an	put small parts such as bolts, nuts, wire-	
obstruction such as a pipe, a gutter or a	nuts and small tools in addition to	
window.	pails.	

## **3.4 Fall Protection Requirements**



Ladders may be used **WITHOUT** the user wearing a personal harness tied off to a CalOSHA certified fall protection anchor, when a leaning or extension ladder can be tied-off and stabilized to a permanent structure, or a step ladder is used on a level firm surface, and then work is done within the following specific activities:

- 1. When using the ladder to gain access from one level to another without carrying anything in your hands.
- 2. When using a ladder for access to a work area where work is conducted while standing on the ladder, provided the user can ascend and descend using both their hands during the entire up/down movement on the ladder.
- 3. When working aloft on the ladder provided both of the user's feet are stationary on one rung and the work area requiring two-handed work is within the ladder's 'foot print' (i.e. no reaching beyond the base legs of the ladder with both hands).
- 4. When the user can use three-point contact (both their feet plus one hand) for stability when reaching and working outside the ladder's 'foot print' using only one 'free' hand.
- 5. When the ladder user's feet are below the top two rungs of a leaning single/extension-ladder or are below the top two steps and top cap of a step ladder.
- 6. When doing elevated 'fine two-handed work' within the 'foot print' of the ladder, where a user is using both hands to conduct light-weight work without the use of power tools. (Example: Twisting a wire nut on two to three 12-gage or smaller wires, hammering a nail into wood, or unscrewing a light bulb and installing a replacement light bulb.)
- 7. When using a small cordless power tool such as a <sup>1</sup>/<sub>4</sub>" bit (or smaller) hand-drill that is not likely to cause imbalance should the power tool bind during use.
- 8. When using a corded power tool within the 'foot print' of the ladder using only one hand to control the tool, and otherwise having 3-point contact on the ladder.



Fall protection must be used in all other ladder-use situations unless the Owner Department can demonstrate that the planned work activities are equivalently safe to the above noted requirements.

Alternatives to using fall protection include temporary scaffolding with appropriate railings, the use of a "Lift Pod", the use of Genie lifts or bucket trucks, etc., and should be considered before using ladders in such situations.

# **3.5 Housekeeping**

- Clear debris and equipment that could cause a slip, trip, or fall from working areas around the ladder.
- Prevent equipment and supplies from falling on other people.
- Set up ground cloths if needed.
- Cordon off work areas using yellow caution tape to keep casual passersby out of your work area.

# **4.0 Training Requirements**

The Department owning the ladders has the option of providing ladder user training from:

- A contracted training provider
- Providing training from within the department, or
- Ladder Use and Fall Protection Training provided by SIPE Safety.

Irrespective of the source, the contents of and safe-work procedures outlined in this program are part of any ladder safety training. Training is documented and kept in a readily accessible location by the department designee for access reference as needed by Department management, SIPE Safety, or regulatory agency (e.g. CalOSHA).

Program Administrators are trained on their roles and responsibilities in the management/maintenance of the requirements and ladder inspections outlined in this program.

As part of their work activities, ladder users receive documented training once on the contents of this program and the general safe-work procedures it contains. In addition, site-specific or task-specific safe- work orientation/tail- gate training may be needed in the use of ladders for unusual operations. Annual review of the general requirements and safe-work rules of this program is appropriate for tailgate or periodically scheduled safety meetings.

Appendix A: Definitions

"A" Frame ladder	Also Known as a "Step Ladder"		
Angle of Inclination:	The preferred pitch for portable non self-supporting ladders		
Articulating Ladder:	Also known as a "Combination Ladder", "Sectional Ladder" or "Multi-position		
	ladder". This is a portable ladder capable of being used either as a stepladder, a single		
	ladder or an extension ladder. It may also be capable of being used as a trestle ladder		
	or a stairwell ladder.		
Cage:	A cage is a guard that may be referred to as a cage or basket guard, which is an		
	enclosure that is fastened to the side rails of a fixed ladder or to the structure to		
	encircle the climbing space of the ladder for the safety of the person who must climb		
	the ladder.		
Cleats:	Ladder crosspieces of rectangular cross section placed on edge upon which a person		
	may step while ascending or descending. Also known as ladder "rungs".		
Combination Ladder:	Another name for "Articulating Ladder". See definition above.		
Double Front or Twin Front	a self-standing ladder that is designed to allow both sides of the ladder to be climbed		
Ladder:	safely.		
Feet:	The component of the ladder that is in contact with the lower supporting surface.		
Fixed Ladder:	a ladder that is permanently attached to a structure, building, or equipment.		
Grab bars:	Are individual handholds placed adjacent to or as an extension above ladders for the		
	purpose of providing safe hand-hold above the "top" of the ladder.		
Individual-Rung Ladder	a fixed ladder, each rung of which is individually attached to a structure, building or		
	equipment		
Ladder Stand	a mobile fixed sized self-supporting ladder consisting of a wide, flat tread ladder in		
	the form of stairs. The assembly may include handrails but does not include a		
	platform.		
Multi-Position Ladder	Another name for an "Articulating Ladder". See definition above.		
Rungs	Ladder crosspieces upon which a person may step while ascending or descending.		
	Rungs are usually "round" in cross-section while "cleats" are usually rectangular in		
	cross-section. See definition of "Cleats" above.		
Sectional Ladder	Another name for "Articulating Ladder". See definition above.		
Sections	(as related to a "Sectional Ladder")		
Bottom or base section	The lowest section of a non-self-supporting portable ladder		
Top or Fly section	The uppermost section of a non-self-supporting portable ladder.		
Middle or Intermediate	The section between the top (fly) and bottom (base) sections of a non-self-supporting		
section	portable ladder.		

Single Ladder	A non-self-supporting portable ladder, nonadjustable in length, consisting of one
	section.
Side Rails	The side members joined at intervals by rungs, steps, cleats or rear braces.
Step Stool (ladder type)	a self-supporting, foldable, portable ladder, non-adjustable in length, 32 inches or less
	in size, with flat steps and without a pail shelf designed so that the ladder top cap as well as all steps can be climbed upon. The side rails may continue above the top cap.
Step Ladder	A self-supporting portable ladder, non-adjustable in length, with flat steps and a
	hinged base. Also known as an "A"-Frame ladder.
Тор Сар	The uppermost horizontal member of a portable step ladder or step stool.
Working Load	The maximum applied load, including the weight of the user, materials, and tools,
	which the ladder is to support for the intended use.

Appendix B: Ladder Inspection Form

Lado	ler Insp	ection Form		
Company Name: Please Ladder Reference N	se Print umbe <u>r:</u>	Dept		<u></u>
Inspector		Date.		
Circle Areas	Size Aluminum G Steps: Rails: Labels: Pail Shelf: Top: Spreader: General: Other: Actions: L L L L L L L L L L	ft. Wood Loose, Cracked, Bent or Missing Cracked, Bent, Split or Frayed Rail Shields Missing or Not Readable Loose, Bent, Missing or Broken Cracked, Loose or Missing Loose, Bent or Broken Rust, Corrosion or Loose Bracing, Shoes, Rivets adder tagged as damaged & removed adder is in good condition	Yes	
Extension Lade	der Size	ft.	Yes	No
Circle Areas of Damage	Rungs: Rails: Labels: Rung Locks: Hardware: Shoes: Rope/Pulley: Other: General:	Loose, Cracked, Bent or Missing Cracked, Bent, Split or Frayed Missing or Not Readable Loose, Bent, Missing or Broken Missing, Loose or Broken Worn, Broken or Missing Loose, Bent or Broken Bracing Rivets Rust, Corrosion or Loose		
A. A	Actions:	adder tagged as damaged & removed adder is in good condition	l from	use