



SAN DIEGO
Community College District

**San Diego Community College District
Risk Management Office**

Fall Protection Program



PROGRAM AUTHORIZATION

_____ Chancellor	
_____ Trustee	_____ Trustee
_____ Trustee	_____ Trustee
_____ Trustee	
_____ Vice Chancellor, Facilities	_____ Vice Chancellor, Human Resources
_____ Risk Manager	
Date: _____	



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I. PURPOSE

The San Diego Community College District, recognizing that the health, safety, and well-being of its employees are of paramount importance in the management of the District, affirms its commitment to create and maintain a safe and healthful working environment.

The San Diego Community College District’s *Fall Protection Program* provides guidance to reduce the hazards and risks associated with falling on the same level, falling objects, and falling from one level to another.

Injuries from falls on the same level are caused by slipping and tripping on walking surfaces or stairways. Objects stored at heights or objects that are stacked or piled can become dislodged and injure people walking or working nearby. The guidelines to prevent these types of injuries to both employees and students are applicable to all District job classifications.

Falls from elevated locations, such as working on ladders, aerial work platforms, and rooftops, can result in severe injuries or even death. Exposures to these types of activities require additional equipment and precautions and are typically restricted to Facilities Services Department personnel.

II. REGULATORY CITATIONS

- California Code of Regulations, Title 8, § 1670
- California Code of Regulations, Title 8, § 3207
- California Code of Regulations, Title 8, § 3209
- California Code of Regulations, Title 8, § 3210
- California Code of Regulations, Title 8, § 3212
- California Code of Regulations, Title 8, § 3214
- California Code of Regulations, Title 8, § 3241
- California Code of Regulations, Title 8, § 3272
- California Code of Regulations, Title 8, § 3276
- California Code of Regulations, Title 8, § 3277
- California Code of Regulations, Title 8, § 3278
- California Code of Regulations, Title 8, § 3638
- California Code of Regulations, Title 8, § 3640
- California Code of Regulations, Title 8, § 3642
- California Code of Regulations, Title 24, Part 2 (Building Code)
- Code of Federal Regulations, Title 29, § 1910.22
- Code of Federal Regulations, Title 29, § 1910.23
- Code of Federal Regulations, Title 29, § 1910.28
- Code of Federal Regulations, Title 29, § 1910.29
- Code of Federal Regulations, Title 29, § 1910.140
- Code of Federal Regulations, Title 29, § 1926.250
- California Emergency Management Agency, *Guide and Checklist for Nonstructural Earthquake Hazards in California Schools (2011)*.



Uniform Building Code, 1979 § 3321 (by reference from 8 CCR 3239)

III. DISTRICT POLICIES AND PROCEDURES

SDCCD Board Policy 6800

IV. AUTHORITY

The Chancellor has ultimate authority and responsibility for the health and safety programs within the District. Creating broad-based safety accountability is the responsibility of the Chancellor and District leadership.

The Chancellor has designated the Vice Presidents of Administrative Services and the Regional Facilities Officers to act as the *Fall Protection Program* administrators at each College within the District. At the District Office, the designees are the Risk Manager and District Architect while at the District Facilities Services Center; it is the Director of Facilities.

To ensure effective implementation of this *Program*, all personnel with designated specific responsibilities are expected to understand and implement the procedures outlined in this document, together with the specific contents of this *Fall Protection Program* for their assigned facility.

A. Chancellor’s Designees

The Vice Presidents of Administrative Services and Facility Directors have the authority and are responsible for the implementation and maintenance of this program, including:

1. Developing or adopting the necessary policies and programs to adequately maintain a safe and healthful work and learning environment at the facilities of their responsibility
2. Conducting formal inspections of each assigned workplace as required
3. Conducting investigations of all fall-related injuries
4. Providing for proper protective equipment for personnel who work at elevated locations
5. Reporting all fall hazards involving an imminent danger to employees or students immediately to the College President, with a recommendation for abatement
6. Recommending to the College Safety Committee any additions or changes to the *Fall Protection Program*
7. Assisting supervisors in conducting workplace hazard assessments to identify, evaluate, and correct fall hazards
8. Providing for training to those employees required to abide by this *Program*
9. Providing for the prompt correction of slip, trip, and fall hazards
10. Assigning designees to fulfill all aspects of this *Program*.

B. Risk Management Office



The District Risk Management Office is responsible for the oversight and maintenance of this *Program*, including:

1. Reviewing the *Program* annually and updating, as necessary
2. Evaluating the adequacy and consistency of fall protection training in the District
3. Providing technical expertise to all Chancellor’s Designees, as requested and required
4. Monitoring Cal/OSHA standards for relevant regulatory changes
5. Conducting periodic program audits and inspections at District facilities to evaluate compliance with all Federal, State, County, District, Facility, and College fall protection regulations
6. Reviewing site-specific programs drafted by the independent Colleges to ensure compliance and consistency with regulations, this *Program*, and District policy.

C. Facilities Services

The Facilities Services Department is responsible for the implementation of this *Program*, including:

1. Planning, organizing, and coordinating fall protection training for its employees
2. Maintaining equipment necessary for the safe work at elevated locations
3. Addressing identified fall hazards as expeditiously as possible by way of routine and emergency maintenance
4. Identifying and correcting slip, trip, and fall hazards during routine activities
5. Maintaining the records of inspections, hazard abatements, equipment repair, and training.

D. Supervisors

Supervisors are responsible for implementing and enforcing the provisions of this *Program*, including:

1. Identifying activities and locations that fall under the scope of this *Program*
2. Training employees on the proper use of ladders, lifts, and fall protection devices
3. Training employees in slip, trip, and fall safety
4. Maintaining and stocking appropriate fall protection equipment
5. Ensuring employees comply with housekeeping requirements
6. Identifying fall hazards in their area of responsibility
7. Providing personal protective equipment and technical expertise to employees
5. Assigning designees to fulfill all aspects of this *Program*.

E. Employees

Employees are responsible for



1. Completing all necessary training
2. Complying with all relevant aspects of the *Fall Protection Program*
3. Properly implementing safe work practices for elevated work
4. Following all housekeeping and storage guidelines
5. Reporting all unprotected fall hazards and near misses to the appropriate supervisor
6. Reporting any Program deficiencies to their supervisor or the Risk Management Office.

F. Students

Due to the increase in risk, the severity of potential injury, the need for specialized training, and the use of personal protective equipment, students are expressly forbidden to work at heights in the capacity as District employees.

V. TRIP HAZARDS

Based on injury statistics, one of the most hazardous activities in the workplace is walking. Employees can injure themselves by slipping or tripping on walking surfaces.

A. General Provisions

1. Tools and equipment that are not in use shall be properly stored out of walkways.
 - a. Areas with permanent floor storage should delineate pedestrian footpaths and storage locations with adequate markings.
 - b. If walkways must be used for the temporary placement or storage of tools, equipment, or materials, the area shall be clearly and visibly cordoned off or warnings shall be posted.
2. Aisles and walkways shall remain clear of obstructions.
3. Walkways shall be free from projections, obstructions, or other hazards.
4. Walkways and access ways should have adequate overhead clearance of at least six feet eight inches (6' 8") to prevent injuries to the head.
 - a. Pipes, service runs, or protruding permanent objects that do not meet this height requirement shall be identified with high visibility markings to notify passersby of the potential hazard.
5. When possible, material and items should be stored on shelves or racks, not on the floor or ground.
6. Cords, wires, and hoses shall not be run across walkways, if possible.
 - a. Permanent cords, wires, pipes, and hoses shall be properly run under or over walkways.
 - b. Temporary cords, wires, and piping should not be placed in pedestrian walkways.
 - 1) Cords or wires that must cross walking paths shall be appropriately secured, such as with duct tape or protective mats, as close to the ground as possible.
 - 2) Cords that will routinely be used and must cross pedestrian paths,



- such as in conference rooms, shall be fitted or designed with a cable cover.
- 3) Hoses or temporary piping that must remain across walking surfaces for extended periods (more than two (2) days) shall be outfitted with crossovers.
- 7. Mats and area rugs shall be secured to the underlying surface by way of high friction backing or adhesive strips.
- 8. Drawers, file cabinets, and display cases shall be closed unless actively being accessed.
- 9. Worn or torn carpet shall be reported to Facilities Services immediately for repair or replacement.
- 10. All spills shall be cleaned up immediately.
 - a. For large volume spills, Custodial Services should be contacted.
 - b. The employee shall remain in the area to prevent other employees and students from slipping on the material until the spill is cleaned or Custodial Services arrives.
- 11. Employees should take the initiative to correct any immediate trip hazards or make an attempt to clearly identify them for pedestrians.

B. Wet Surfaces

- 1. In inclement weather, temporary mats should be placed in high-traffic areas with smooth-surfaced floors.
 - a. 'Wet floor' warning signs shall be placed near the entrances to buildings with smooth-surfaced floors.
- 2. Areas that are being cleaned, waxed, or otherwise wet-worked shall be clearly identified by at least two (2) wet floor warning signs on both sides of the activity.
 - a. If the area being cleaned is a room, then one (1) sign at the entrance to the room is adequate.
 - b. Other temporary barriers may also be used to prevent employee and student access to the wet floor.
 - c. The employee performing the work shall visually verify that the main paths of travel are dry prior to removing the signs or barriers.
- 3. Grounds keeping crews should adjust watering schedules to actuate irrigation systems early in the morning, preferably at least one (1) hour before classes start.
 - a. If system tests are required while students and employees are on campus, walkways should be clearly marked as 'wet' and barriers or other means to notify pedestrians should be implemented.
- 4. When wet-processes are used on a consistent basis in one location such as near dish washing stations, drainage as well as dry standing places, such as platforms or mats, must be provided for employees.
 - a. The use and issuance of slip-resistant footwear must also be assessed by the supervisor.
- 5. Employees should:
 - a. Wear shoes with slip-resistant soles in inclement weather or when working with wet processes.



- b. Avoid walking in visible puddles of fluid.
- c. Not run on wet surfaces.

C. Stairs

1. Stairs shall have adequate lighting for proper visibility (24 CCR Part 2, Section 1008.2.1).
 - a. Stairs designated as emergency exits shall have emergency power supplied to the lights (24 CCR Part 2, Section 1008.3.2).
 - b. Burnt out, broken, or missing lights should be reported to Facilities Services immediately.
2. Stairs shall be outfitted with at least two (2) handrails in good repair if they consist of more than one (1) step (8 CCR 3207, 8 CCR 3214, 24 CCR, Part 2, Section 1011.11).
 - a. Loose or damaged handrails should be reported to Facilities Services immediately.
 - 1) Highly visible signs shall be attached to the handrails by Facilities Services warning individuals that the rails are unstable.
3. Materials, tools, and other items are prohibited on stairs that are not closed for maintenance or cleaning.
 - a. Stairs that are being actively maintained, repaired, or cleaned shall be barricaded from access with highly visible signs and barriers.
 - b. Signs shall provide directions to alternate access routes.
 - c. Barriers and signs shall not be removed until the repair is completed, and all materials and tools have been removed.
4. Stair treads should have slip-resistant materials affixed near or on the nose (leading edge) of every step.
 - a. Such materials can include rubber, metal, or slip-resistant paint.
 - b. Landing areas and areas leading to stairs should also have slip-resistant coverings.
5. Contrasting colors or materials should be installed on or near the nose of the step to improve visibility.
6. Loose or damaged steps should be reported to Facilities Services immediately.
 - a. Signs warning of the loose steps shall be installed by Facilities Services immediately.
 - b. Facilities Services shall also evaluate whether the stairs are safe to use or if access should be prohibited until repairs can be completed.
 - 1) If access is prohibited, signs clearly identifying alternate routes shall be prominently displayed.
7. Employees should:
 - a. Use ramps or elevators when carrying large objects that obscure their view of stairs;
 - b. Avoid running up or down stairs;
 - c. Avoid skipping steps;
 - d. Avoid using handheld devices while using stairs;
 - e. Use extra caution during inclement weather.



D. Walkways (8 CCR 3272)

1. Walkways in storage areas or warehouses shall be clearly identified with obvious markings of contrasting colors.
 - a. Yellow tape or paint at least three (3) inches wide shall be used to designate safe walking paths.
 - b. Walking paths shall be at least twenty-four (24) inches wide.
 - 1) Aisles in hazardous materials or hazardous waste storage areas shall be at least thirty-six (36) inches wide.
 - c. These requirements do not apply to office area storage rooms or closets.
2. Exterior sidewalks with uneven concrete slabs create a trip hazard
 - a. An elevation difference of one quarter (1/4") or more should be addressed by grinding, or other leveling procedure
3. Pedestrian walkways that cross main parking lot entrances and exits or that cross streets or driveways shall be clearly marked with a high-contrast color.
 - a. If markings become worn or otherwise difficult to see, employees should notify Parking Services.
4. Changes in elevation should be marked with a contrasting color or texture to provide visual indications of the change.
5. Deteriorating or damaged walkways shall be reported to Facilities Services immediately while damage in parking lots should be reported to Parking Services immediately.
 - a. Facilities Services or Parking Services shall mark the area with a warning sign until repairs are completed.
 - 1) Barricades preventing access can be used in place of signs.
 - 2) Alternate paths shall be clearly noted on signs or barricades.
6. Walkways that are commonly used by employees and may become slippery on a routine basis, such as in walk-in freezers, shall have texture or other protection against slipping installed.
7. Walkways shall be adequately illuminated.
 - a. Emergency egress paths shall be adequately illuminated and have emergency power available (24 CCR, Part 2, 1008.3.2).

VI. FALLING OBJECTS

Objects stored at heights present potential hazards to employees if they were to fall. In a seismic event tall items, such as ladders and bookcases, could cause an injury.

A. General Considerations

1. Whenever possible, objects should not be stored above six (6) feet high except for warehouse environments.
 - a. If objects or materials must be stored over six (6) feet high, the objects shall be restrained or otherwise provided with a means to prevent falling from its location, such as the installation of lips at least three-quarters inch



- (3/4") high or restraining straps.
- 2. Objects with a rounded surface shall be provided with a means to prevent them from freely rolling off their storage location.
- 3. Heavier objects shall be stored close to the floor.
- 4. Hanging displays and objects shall be secured to beams and not to suspended ceilings using appropriate anchors and wire.
- 5. Free-standing storage shelves, cabinets, lockers, bureaus, display cases, or racks that are taller than thirty-six (36) inches shall be secured to a wall, by way of at least one stud, or to another unit.
 - a. Free-standing items should be located at least forty-eight (48) inches away from any door used as an emergency exit as to not block the exit in case of an emergency.
 - b. Cubicles and partitions should be secured to each other and the floor.
 - c. Bookcases taller than six (6) feet shall be anchored to the floor and a wall or another case.
 - d. Units that are interconnected shall be secured on two sides and the top.
- 6. Televisions, monitors, and projection units shall be attached to studs or beams by way of mounting brackets.
 - a. If the television is on a shelf, the unit shall be secured to the shelf by way of a mounting bracket or strap to prevent falling.
- 7. Open shelves more than forty-eight (48) inches above the floor shall have lips, doors, or blocking strips to prevent objects from falling.
 - a. A 'blocking strip' is a piece of wood or Plexiglas installed lengthwise to the shelf a couple of inches above the surface to prevent objects from falling.
- 8. Hanging pictures or signs shall be secured to wall studs.
 - a. Items may be hung using wire.
 - b. Hooks supporting the wire should be closed after hanging or outfitted with spring bars to secure the wire.
- 9. Equipment on moveable carts shall be secured to the carts with straps or transported in a closed cabinet on the cart.
 - a. Carts should have lockable wheels.

B. Warehouse Rack Systems

A warehouse rack is a system of beams and columns used to store bulk goods. They are also typically designed to accommodate palletized goods. This section does not apply to shelving systems.

- 1. Racks shall be clearly and conspicuously labeled with their maximum capacity loads.
 - a. A means must be available to ensure that material storage does not exceed ninety percent (90%) of the maximum load.
- 2. Heavier materials shall be stored at floor level with progressively lighter materials placed higher on the rack system.
- 3. Racks shall be securely anchored to the floor and one another or a wall.
- 4. Bins, planks, bars, blocks, or sheets shall be used as appropriate to prevent



- materials from falling off racks (8 CCR 3241).
- 5. Racks should have a means to protect the support columns from being struck by vehicles, including powered industrial trucks (e.g., forklifts) such as stanchions or protective sleeves.
- 6. Stored materials, including pallets, shall not overhang the edges of the rack.
- 7. Employees shall avoid entering the space directly underneath racks containing materials.
- 8. Each rack and rack system shall have a regularly scheduled and documented inspection.
 - a. The inspection shall note any damage, warping, bending, or cracking.
 - b. The inspection should also note the condition of nuts, bolts, and safety locks to ensure they are intact, tight, and undamaged.
 - c. Records of the inspection shall be kept for at least three (3) years.

C. Material Storage (29 CFR 1910.250)

This section applies to the storage of bulk materials which are not placed on rack systems.

- 1. Bagged materials shall be stacked by stepping back the layers and cross-keying (rotating the bags ninety (90) degrees from the level below) every ten (10) layers.
 - a. Resulting pile resembles a pyramid.
- 2. Masonry materials, such as bricks and pavers, shall not be stacked more than seven (7) feet high.
 - a. If stacks exceed four (4) feet, the materials shall be tapered back two (2) inches at each additional foot.
- 3. Lumber shall not be stacked more than sixteen (16) feet high.
 - a. Nails and staples shall be removed from stacked lumber.
 - b. Lumber stacks shall be stable.
 - c. Lumber shall be stacked on sturdy, level sills.
- 4. Materials that are to be manually removed shall not be stacked higher than five (5) feet from the floor or ground level.
 - a. Materials higher than five (5) feet shall be either moved to the floor/ground level by mechanical means or accessed by use of a personal lift.
- 5. Cylindrical stock shall be stacked and blocked to prevent rolling, spreading, or tilting.
 - a. Cylindrical stock may be placed on racks which have roll prevention mechanisms, such as breaker bars.
- 6. Heavy boxes shall never be stacked on lighter boxes.
 - a. Boxes that are not full and lack interior supports shall not have boxes placed on top of them.
 - 1) This is evidenced by sagging or crushed boxes
 - a) The boxes must be restacked to prevent falling.
- 7. Palletized materials should be banded or shrink-wrapped to prevent falling off the pallet during transportation.
 - a. Manufacturer or supplier instructions regarding the ability to stack pallets



- shall be strictly followed.
8. Stacking methods can be used to reduce the likelihood of objects falling:
 - a. Block stacking- stack items in such a way as to form a cube with a height equal to the length of the sides.
 - b. Brick stacking- each level of the stack is rotated ninety (90) degrees to the level below it.
 - c. Pinwheel stacking- each quadrant of each level is rotated ninety (90) degrees to the level below it.
 - d. Inserts- adding layers of cardboard or wood every two levels increases friction and decreases the chances of falling.
 9. Drums may not be stored more than two (2) high.

VII. FALL PROTECTION SYSTEMS

Falls from elevated locations can be prevented using guardrails or personal protection devices, such as fall restraint and fall arrest devices.

A. Guardrails (8 CCR 3209)

Guardrails are required as permanent or temporary controls to prevent employees and students from falling from an elevated location.

1. Guardrails are required
 - a. In or on buildings or structures when the working level is more than thirty (30) inches above the next lower level
 - 1) This includes work conducted on rooftops.
 - b. In other locations when the working or walking level is more than four (4) feet above the lower level.
 - c. For bleachers that are more than two (2) rows high (exceeding 30 inches).
 - 1) Guardrails must be installed along the sides and rear of the bleachers (Uniform Building Code, 1979, Section 3321).
 - 2) This condition is mandatory for both indoor and outdoor bleachers, including telescoping bleachers in gymnasiums.
 - a) Indoor telescoping bleachers do not require guardrails at the top unless there is a gap greater than twelve (12) inches between the uppermost bench and the wall.
 - d. For elevated walkways that are higher than four (4) feet above the bottom of a slope and are less than six (6) feet from the downward slope, such as in stadiums or other terraced locations.
2. Guardrails shall be forty-two (42) to forty-five (45) inches above the surface to which they are attached.
 - a. The tolerance for guardrail height is one (1) inch.
 - b. Chains and ropes can be used as guardrails if they meet the minimum height requirement at their lowest point.
3. Guardrails shall consist of a top rail, mid rail, and posts.
 - a. Parapets shall be considered adequate protection if they meet the height



requirement.

- 1) Parapets that do not meet the minimum height requirement must be supplemented with extensions, such as rails or cable systems.
 - b. The top rail shall
 - 1) Be of smooth construction and free from burrs or sharp edges
 - 2) Not overhang the terminal post
 - 3) Support at least twenty (20) pounds per linear foot either horizontally (pushing or pulling) or vertically (up or down).
 - c. Wooden guardrails
 - 1) The top rail must be of two by four (2x4) nominal dimension unless
 - a) One by four (1x4) top rails are constructed with one flat member attached to the top of the posts and one vertical member fastened between the posts.
 - 2) Wood posts and midrails must be at least two by four (2x4) nominal dimension.
 - 3) Wood posts must be spaced no more than six (6) feet apart on center.
 - a) If the top rail is constructed with 1x4 members as noted above, posts may be spaced no more than eight (8) feet apart on center.
 - d. Metal guardrails
 - 1) Top rails may be either
 - a) Round pipe of at least one and one half (1 ½) inches in outside diameter, or
 - b) Two by two by three-eighths (2x2x3/8) inch angle iron or shapes of equivalent strength.
 - 2) Posts and midrails must be pipe of at least one and one half (1 ½) inches in outside diameter.
 - 3) Posts must be spaced no more than eight (8) feet apart on center.
 - e. Other materials may be used if they provide equivalent strength and protection and adhere to the spacing and height requirements.
 - f. Framing and members of temporary systems shall be installed such that they will afford the greatest protection on the side of normal employee contact.
 - 1) Example: metal angles shall have the vertical leg on the side of normal employee contact.
 - 2) Example: wood midrails shall be attached on the side of normal employee contact.
4. Guardrails are not required for
- a. Edges of loading docks where cargo is loaded or offloaded from vehicles, if the dock exceeds a height of thirty (30) inches
 - 1) Temporary guardrails or other indicators may be installed when the dock is not actively being used.
 - 2) Warning signs shall be placed indicating the presence of a loading dock on the exit doorways leading to the dock.
 - 3) Loading docks higher than thirty (30) inches from the lower level



- shall have dock-locks to prevent the vehicle from moving and be outfitted with dock boards.
- b. Theater seating areas where a guardrail would obstruct sight lines
 - 1) Such areas must be protected by guardrails or barriers at least thirty-four (34) inches (8 CCR 3210(a)(9)).
- c. Elevated work locations accessed less than four (4) times per year if a means for using a fall restraint or fall arrest system is available (8 CCR 3212(d)(1))
- d. Fire hose drying towers
- e. Stages, raised platforms, and raised floor areas in auditorium stages, including openings such as for orchestra pits.
- 5. Toe boards may be required and can be made of metal, wood, concrete, or other material.
 - a. Toe boards are required whenever the surface is more than six (6) feet above the lower level and persons work or walk on the lower level (8 CCR 3210(a)).
 - b. Toe boards must be at least three and a half (3 ½) inches above the surface.
 - c. If constructed of metal grillwork, the mesh shall not exceed one (1) inch.
 - d. Bottom clearance shall not exceed one quarter (1/4) inch above the surface.
 - e. Toe boards are required on bleachers and grandstands.
- 6. Where tools, debris, or materials can fall between the rails, suitable mesh or other material shall be installed to prevent items from falling to the level below.
- 7. Broken, loose, or compromised guardrails shall be repaired or replaced immediately.
 - a. Until the guardrail system is repaired, access to the elevated surface protected by the area of guardrail that is compromised shall be prohibited with visible, legible, durable signage.
 - b. Facilities Services employees must use a properly anchored personal fall protection device while repairing the guardrail from the elevated surface.

B. Personal Fall Protection Devices (8 CCR 1670)

Personal fall protection devices consist of fall arrest, fall restraint, or positioning devices.

1. Requirements

- a. Personal fall protection devices are required when employees
 - 1) Are exposed to heights exceeding six (6) feet where guardrails are not present,
 - 2) Work within six (6) feet of an unguarded edge,
 - 3) Work on a sloped roof steeper than 7:12 (30 degrees)
 - 4) Work on sloped surfaces steeper than forty (40) degrees
 - 5) When repairing guardrail systems
 - 6) As otherwise specified in this *Program*.



- b. Personal fall protection devices consist of
 - 1) Body harness
 - 2) Attachment rings
 - a) Connectors must be drop forged, pressed, or formed steel or equivalent material (29 CFR 1910.140)
 - 3) Snap hooks
 - a) All snap-hooks shall be self-locking.
 - 4) Lanyards
 - a) The lanyard may be of fixed length, retractable, or include deceleration devices (e.g., 'shock pack') depending on the application.
 - 5) Lifelines, if appropriate
 - 6) Cable or rope grabs, if appropriate
 - 7) Anchor points.
- c. The Regional Facilities Officer or their designee is responsible for maintaining and controlling the access to fall protection equipment.
 - 1) Each piece of equipment shall be assigned a unique identification number.
 - 2) Equipment will only be issued to those employees who have undergone fall protection training.
 - 3) Under no circumstances may students, student workers, or volunteers use fall protection equipment or be tasked with work that requires personal fall protection devices.
 - 4) The Regional Facilities Officer or responsible supervisor at the District Services Center shall have a system to log out and log in personal fall protection equipment.
 - 5) The Regional Facilities Officer or responsible supervisor at the District Services Center must ensure that all harnesses are inspected every six (6) months by a competent person, regardless of use.
 - a) This inspection shall be recorded and should contain a log of elements inspected.
 - b) The log shall be kept for at least three (3) years.
- d. All fall protection system components shall be inspected prior to use and donning by the employee.
- e. Employees must receive training prior to using fall protection devices.
- f. Any lanyard, harness, or device that was involved in a fall shall be immediately removed from service and not used again.
 - 1) The Regional Facilities Officer or responsible supervisor at the District Services Center must record the incident and enter the removal of the equipment in the log.
 - 2) The Regional Facilities Officer or responsible supervisor at the District Services Center must ensure that the equipment is never again used for employee fall protection.
 - 3) The incident shall be reported to the Site Safety Committee at the next scheduled meeting.



- g. Lifelines and anchors must be able to support at least five thousand (5000) pounds.
 - 1) Lifelines may not be made of natural fiber rope (29 CFR 1910.140(c)(15))
- h. Lanyards shall be secured to a substantial member of the structure or to a suitably anchored line.
- i. All devices must be clearly and durably labeled as meeting the ANSI standards
- j. Harnesses are typically rated for a maximum of three hundred and ten (310) pounds, including equipment.
 - 1) Employees must notify their supervisor if they require a higher rated harness.

2. Fall Arrest

Fall arrest systems are designed to decelerate and stop an employee who has already fallen.

- a. Systems must be attached to anchors or other devices that are rated to hold at least five thousand (5000) pounds per employee attached.
- b. Vertical lifeline devices must have the ability to lock in both directions.
 - 1) For vertical lifelines, only one employee may be attached to any one line.
- c. Lifelines shall be protected against being cut or abraded.
- d. Self-retracting lifelines and lanyards ('yo-yos')
 - 1) If the system limits the free fall to two (2) feet, they must have a minimum tensile load of three thousand (3000) pounds.
 - 2) If the system allows a free-fall greater than two feet, it must have a minimum tensile load of five thousand (5000) pounds.
 - 3) Materials used for lanyards and lifelines shall be synthetic unless they are used in conjunction with hot work or other spark producing activities.
- e. Systems shall have a maximum arresting force of eighteen hundred (1800) pounds.
- f. Systems shall limit the free fall to no more than six (6) feet or the lower level, whichever is less.
 - 1) A fall distance determination shall be made prior to starting work operations involving fall protection devices.
 - a) Such determination shall evaluate the components of the system and whether they are of appropriate lengths to prevent the worker from falling and striking the lower level or intermediary objects prior to complete deceleration.
- g. The system shall decelerate the employee within three and a half (3.5) feet.
- h. Harnesses shall
 - 1) Have a d-ring in the center of the back, near shoulders or above the head



- 2) Be inspected by the employee prior to use
- 3) Be in good condition, without any fraying, tears, or burns
 - a) Damaged harnesses shall be returned to the supervisor for replacement and shall never be reused.
- 4) Not be attached to hoists or guardrails
- 5) Never be used to hoist materials
- 6) Properly secured with no twisted belts prior to attaching to the lanyard.
- i. Prompt rescue must be available if the employees are unable to rescue themselves.
 - 1) All work involving harnesses must have a spotter on the ground or lower level who has a functioning communication device to initiate a rescue, if required.
 - 2) Rescue can be affected by use of aerial devices, properly supported portable ladders, or by calling 911 to request a fire department response.
 - 3) Means of rescue must be able to reach the employee within ten (10) minutes.

3. Fall Restraint

Fall restraint devices are systems designed to prevent employees from falling over an unguarded edge while allowing a certain freedom of movement.

- a. The harness must be attached to an anchor point or horizontal lifeline attached to two (2) anchor points.
 - 1) Lifelines may be either above or below head height.
 - 2) Anchor points must be independent of those used to suspend employees or platforms (29 CFR 1910.140(c)(12))
- b. Lanyards used for fall restraint shall be of fixed length or so attached as to prevent the employee from crossing the plane of the unguarded edge.
 - 1) Fall restraint lanyards shall not contain shock absorbers or other deceleration devices.
- c. Anchor points must be able to support at least four (4) times the intended load.
- d. Lifelines may be either permanent or temporary.
 - 1) Temporary lifelines must be appropriately anchored to provide adequate protection.
 - 2) Installation of temporary lifeline devices shall be inspected before the employee attaches the lanyard and begins working.

4. Positioning Devices

The District has removed positioning devices from its inventory.

5. Training



- a. Prior to using fall protection devices, individuals shall be trained in
 - 1) Proper inspection of fall protection devices
 - 2) Proper anchoring
 - 3) Proper donning of harnesses
 - 4) Use of positioning devices
 - 5) Use of lifeline devices
 - 6) Limitations of fall protection devices
 - 7) Fall protection versus fall restraint
 - 8) Rescue requirements
- b. Supervisors shall maintain a list of trained personnel and update the list annually.
- c. Training records shall be kept by the supervisor for three (3) years.

C. Scaffolding

Although the District does possess limited scaffolding materials, the District does not employ scaffold-competent persons. Therefore, this material shall not be used by District employees to construct mobile work platforms. Any scaffolding that may be required for District employee activities shall be erected by external contractors who are certified to construct scaffold systems.

- 1. District employees who will ascend scaffolding will be trained in scaffold safety prior to beginning work.
 - a. Training shall include
 - 1) Scaffold hazards
 - 2) Working safely on scaffolds
 - 3) Scaffold inspection tag system.
 - b. Training may be
 - 1) Verbal
 - 2) Conducted by their supervisor or the contractor who installed the scaffold system
 - c. Due to the infrequent nature of scaffold activities, this training briefing is not required to be documented.
- 2. Scaffolding must be inspected daily by the contractor who installed the system (29 CFR 1926.451(f)(3)).
 - a. The inspection must occur before any work can begin each day.
 - b. The inspection must be recorded on a durable tag attached to the scaffold access ladder.
 - c. District employees may not access scaffolding until the daily inspection has been conducted and noted.
- 3. The scaffold access point must be secured in such a manner approved by the Regional Facilities Officer or designee to prevent access by unauthorized employees, students, and visitors.
- 4. Mobile scaffolding used in operations and maintenance shall be locked to prevent movement of the scaffold while the scaffold is used in a stationary manner.



VIII. LADDERS

Ladders are instruments consisting of two side rails and horizontal rungs or cleats that provide access to elevated areas. Portable ladders may be made of many different materials and may be non-self-supporting, like an extension ladder, or be self-supporting, like a step ladder. Other ladders, termed 'fixed,' are permanently attached to the objects or structures they serve.

A. General Provisions

1. Employees shall face the ladder while ascending or descending.
2. Employees shall follow the 'three-point of contact' rule wherein two hands and one foot or two feet and one hand shall support the employee at all times while using the ladder.
 - a. Pursuant to this 'rule,' employees may not carry tools or materials up or down ladders and must use hoists, pulleys, or other means to move tools and materials to elevated work locations.
 - 1) Tool belts are allowed.
 - 2) Materials may not be thrown from ladders or elevated work locations unless the landing area, including a safety buffer zone, is appropriately cordoned off.
 - b. This requirement does not apply to step ladders less than thirty-six (36) inches high.
3. Ladder rungs or cleats should be of non-slip construction.
4. Ladders shall be free of oil, grease, or other slippery materials.
5. When using a ladder, the employee's middle of the pelvis ('belt buckle') shall remain between the rails at all times.
 - a. If the employee must reach to such a degree that the 'belt buckle' moves outside the rails, the employee shall descend and reposition the ladder.
 - b. If accessing the area does not allow for moving the ladder, the ladder shall be secured to a rigid support, and the employee must use a personal fall protection system.
 - c. If ladders cannot reach the area to be accessed, other means, such as aerial lifts, shall be used instead.
6. Wooden ladders shall not be painted with anything other than clear coatings.
7. Ladders shall be rated to accommodate the load of the employee and any tools they may be carrying on their body or materials they will support while on the ladder.
8. Ladders shall be inspected prior to each use.
 - a. Damaged ladders shall be immediately removed from use.
 - 1) Any defect, warping, or other damage to a fixed ladder or the supports shall be immediately reported to Facilities Services Department.
 - a) Any damaged fixed ladder that is scheduled for repair shall have a legible sign durably affixed stating "Do Not Use" with



contact information for the supervisor who took the ladder out of service.

- b) Access to the damaged fixed ladder shall be restricted until repairs are completed.
- b. Ladders with splinters, sharp edges, or other potential hazards shall not be used until the ladder is repaired or removed from service.
- c. If the supervisor determines the integrity of a portable ladder is compromised, the ladder shall be rendered unusable and recycled.

B. Portable Ladders (8 CCR 3276)

1. General Requirements

These requirements do not apply to step stools commonly found in office locations consisting of a single standing platform. This section does apply to folding step ladders that are less than thirty-two (32) inches high.

- a. Ladders may not be ‘walked’ to change the location of the ladder.
 - 1) Employees shall completely descend from the ladder prior to repositioning.
- b. Ladders may not be used horizontally as work platforms or walking surface unless they are designed to be used as such.
- c. Ladders may never be placed on any object, including scaffolding, to increase the height of the ladder.
- d. Ladders may not be attached to one another to increase the effective height of the ladder unless they are engineered to do so.
- e. Ladders shall not be placed in doorways, driveways, roadways, or passageways where they can interfere with the movement of other people or be displaced by incidental contact.
 - 1) If the operation requires placement in one of these areas, the area shall be marked with cones or other barricades and may be marked with signs warning of overhead work.
 - 2) A spotter may also be used to protect the elevated worker.
- f. When working within ten (10) feet of electrical hazards, non-conductive ladders shall be used.
 - 1) All metal ladders shall be clearly and legibly marked prohibiting their use near electrical equipment.
- g. Ladders should be stored in racks, on hooks, or on the ground to prevent damage.
 - 1) Ladders should be stored horizontally to prevent sagging.
 - 2) Hooks can be used to support ladders and should be spaced at a maximum of six (6) feet.
 - 3) Ladders taller than six (6) feet should be stored horizontally to reduce the risk of falling.
 - 4) If hooks and racks are not available, ladders may be secured to the storage location using chains or other devices.



- a) The chain or device must secure the ladders to a wall or other fixed object to prevent the ladders from falling.
- b) The device, if other than a chain, must be of adequate strength to keep the ladders from falling.
- c) If stored vertically, the chain or device must thread through the ladders more than one-half their total height to prevent the ladders from falling.
- d) Ladders may not be secured to one another to prevent falling.
- h. Materials shall not be stored on or against ladders.
- i. Employees should check with supervisors before using ladders in high winds (>20 mph).
- j. If a ladder is considered unsafe, showing problems that could lead to injury or accident, the ladder must be removed from service immediately.

2. Extension Ladders

Extension ladders are devices that require support on one side to provide access to an upper level. They are designed to provide a variety of heights by telescoping an upper portion of the ladder.

- a. The feet of extension ladders shall be placed on secure and level footing prior to ascending.
 - 1) If possible, the cleats shall be used to anchor the ladder into the ground.
- b. The use of a spotter to hold the ladder while ascending is recommended.
- c. The top of the ladder must extend at least thirty-six (36) inches above the next level if used to gain access to a higher level.
 - 1) If the ladder cannot extend to that height above the surface, the ladder shall be secured to a rigid support and a grab bar should be available.
- d. Both rails shall rest against the support surface.
- e. Extension ladders should be angled at a ratio of 1:4- one foot back from the vertical surface for every four feet in elevation.
- f. Each telescoping section must overlap the adjacent section by at least three (3) feet.
- g. All rung locks of an extension ladder must be engaged at any height to prevent the ladder from slipping and to ensure the ladder is right-side up.
 - 1) If rung locks are sticking, removed or otherwise compromised take the ladder out of service and prohibit its use.
- h. Employees are prohibited from standing on the top three (3) rungs of an extension ladder.
- i. Employees shall verify the absence of overhead wires, cables, or other obstructions before extending ladders.
- j. The top of the extension ladder should not rest against rain gutters or other unsupportive materials that may deform, break, or give way while the



- employee is ascending or descending the ladder.
- k. Extension ladders shall not be supported by another extension ladder.
- l. Consider carrying and transporting longer ladders with two people to better distribute its weight and maintain balance

3. Step Ladders

- a. Employees may never use the back of a step ladder unless the ladder is designed as such.
- b. Employees shall not place step ladder on top of another object such as a desk or counter
- c. Ladders shall be placed on level ground whenever possible with all four feet contacting the ground.
- d. Step ladders shall never be used in the 'closed' or partially open position as non-self-supporting ladders.
- e. Step ladders shall not be used on inclined surfaces.
- f. Employees may never step on the top cap or the step below the top cap unless that step is at least eighteen (18) inches below the top cap.
 - 1) For step ladders that are thirty –two (32) inches or less in height, the top cap may be used as a step.
- g. Planks shall not be placed on the top cap of ladders to create a working surface.
- h. The maximum height of a stepladder shall be twenty (20) feet.
- i. The ladder shall be fully opened and the spreaders fully secured before ascending.
- j. Employees may not climb or jump from one stepladder to another.
- k. Employees may not straddle two stepladders simultaneously.
- l. Only one employee may use the ladder at a time unless the ladder is designed and rated for two.
- m. Employees should be aware of the load rating (employee and equipment) before ascending a step ladder.

4. Training

- a. New employees and employees who demonstrate the need for retraining shall be trained on the following ladder topics:
 - 1) Importance of ladder safety, including frequency and severity of ladder-related injuries
 - 2) Proper selection, including type, length, and load
 - 3) Maintenance, inspection, and removal protocols
 - 4) Proper ladder erection
 - 5) Proper use
 - 6) Factors that contribute to falls
 - 7) Prohibited uses for ladders.
- b. If an employee is experienced with ladders, the training may be amended appropriately to District-specific requirements.



C. Fixed Ladders (8 CCR 3277)

A fixed ladder is a ladder that is permanently attached to a structure. They are typically modes of accessing rooftops but may also be used to access interior elevated platforms, the upper surface of tanks, or large pieces of equipment.

1. All fixed ladders shall have a positive means to prevent unauthorized access.
 - a. Such means includes lockable covers or security gates which shall remain locked unless the ladder is being used.
2. Fixed ladders shall be maintained in good condition.
3. Exterior metal ladders shall be painted or have other means to prevent corrosion.
4. The distance between a fixed ladder and the edge of the equipment or structure shall be less than twelve (12) inches.
5. Fixed ladders taller than twenty (20) feet shall be outfitted with cages or safety cable system.
 - a. Cages shall start between seven (7) and eight (8) feet from the bottom of the ladder.
6. Fixed ladders that exceed twenty (20) feet must have a landing platform at twenty (20) foot increments.
 - a. Each twenty (20) foot section shall be offset from each adjacent section.
 - b. Each landing platform shall be outfitted with guardrails and toeboards.
7. If the ladder reaches higher than twenty-four (24) feet above the lower level, it must be outfitted with a personal fall arrest system or ladder safety cable system (29 CFR 1910.28.b.9).

D. Rolling Ladders

Rolling ladders resemble moveable staircases with wheels that may retract when an employee applies a load to the apparatus or that can be locked. Rolling ladders are commonly used in elevated filing or material pulling applications.

1. Rolling ladders shall be placed no further than twelve (12) inches away from a vertical surface before an employee may ascend the ladder.
2. Rolling ladders shall be positioned in such a manner that the employee does not need to reach outside of the ladder assembly to accomplish their task.
3. Rolling ladders shall not be moved if any of the casters or wheels are broken or missing.
 - a. A supervisor shall be notified immediately, and the ladder shall be taken out of service and clearly marked as such.
4. Employees may carry one-handed loads on rolling ladders and must have one hand free to use on the rails.
5. Ladders, step stools, or other extensions may not be used on rolling ladders to increase effective height.
6. If the rolling ladder is not outfitted with spring-loaded wheels, all wheels shall be locked before the employee ascends the ladder.



IX. AERIAL LIFTS

An aerial lift is a vehicle-mounted or self-propelled device that is used to position personnel and allow them to work at heights. Devices commonly used by the district include boom lifts, scissor lifts, and personal lifts.

A. General Provisions (8 CCR 3638, 8 CCR 3646)

1. Each unit shall have an instruction manual present on the unit for the employee's reference
 - a. Instructions shall be protected in a weather-resistant storage location.
2. Each unit shall have a legible plate or other marking noting
 - a. Make, model, and serial number
 - b. Rated capacity at maximum height
 - c. Maximum height
 - d. Maximum hydraulic operating pressure
 - e. Cautions and restrictions
 - f. Basic operating instructions
 - g. Rated line voltage, if applicable.
3. Employees shall be instructed in proper use of the platform before they are allowed to operate the device (8 CCR 3638(d)).
 - a. Instruction shall be documented.
 - b. Training shall consist of at least (8 CCR 3646(l))
 - 1) The relevant provisions of this *Program*
 - 2) Relevant provisions of 8 CCR 3646
 - 3) Safe operation of the device including, but not limited to
 - a) Pre-use inspections
 - b) Raising and lowering the platform
 - c) Moving the unit
 - d) Emergency controls and bypasses
 - e) Proper use of equipment
 - f) Safety harness requirements
 - g) Prohibited practices
 - 4) Hazards associated with the use of aerial devices
 - 5) Maximum load capacity
 - c. District 'operating permits' shall be provided to all employees who undergo operator training (See Appendix A for an example of a permit) for each piece of aerial equipment a person may use.
 - 1) Employees must have the appropriate permit on their person when using an aerial device.
 - 2) Individuals who have not been authorized or who do not have their operator's permit on their person shall be prohibited from operating aerial devices.
 - d. Employees must be instructed on each type of device, including different models of the same device.



- 1) Operator’s permits are manufacturer-, make-, and model-specific.
- e. Permits are valid for two (2) years at which time employees must receive refresher training.
 - 1) An individual with an expired permit is prohibited from operating aerial devices.
 - 2) Permits are not valid for upgraded equipment.
- 4. All devices must have integral safety mechanisms to prevent free-fall upon power or system failure.
- 5. All devices shall be inspected prior to each use.
 - a. The inspection shall be documented on a log that is kept with the device.
 - b. The log (See Appendix B for an example) shall record (8 CCR 3640(d)(1))
 - 1) Date
 - 2) Deficiencies
 - 3) Corrective Actions, if any
 - 4) Initials
 - c. Inspections shall include evaluating
 - 1) Condition of equipment
 - 2) Operational status, including testing of controls and signaling devices
 - 3) Visual inspection for sharp edges, burrs, or other hazardous projections
 - 4) Status of safety mechanisms
 - d. Inspection logs shall be kept for at least three (3) years.
- 6. All controls of the device shall be checked prior to use.
- 7. All devices shall have a repair log.
 - a. The repair log shall include (8 CCR 3640(d)(2))
 - 1) Date of repair
 - 2) Description of problem initiating repair
 - 3) Description of work completed
 - 4) Identification of repair entity (individual or company)
 - b. The repair log may consist of the invoices from the service provider as long as the information above is included.
- 8. Unless explicitly rated for work near energized lines and equipment, aerial devices shall not approach closer than ten (10) feet in any direction to overhead power lines.
- 9. Prior to elevating the platform, employees must ensure that there are no power lines, service lines, branches, light poles, or structural elements above the lift.
- 10. All moving parts must be adequately guarded to protect from injury (8 CCR 3643).
- 11. Unless allowed by the manufacturer, aerial devices shall not be used on inclined planes (8 CCR 3645).
- 12. Aerial devices shall not be used when wind speed or gusts are expected to exceed twenty-five (25) miles per hour.
 - a. If, at any time, an employee is uncomfortable using an aerial device in the wind, there shall be no repercussions for delaying the work.
- 13. Aerial devices shall not be used when thunderstorms or electrical storms are forecast or approaching.



14. Aerial devices shall not exceed their maximum load rating, considering employees and equipment.
15. Aerial devices shall not be moved at a speed exceeding three (3) miles per hour if occupied by employees, equipment, or materials.
 - a. Aerial devices shall be set at the maximum travel height, as recommended by the manufacturer.
16. Aerial devices should be outfitted with audible or visual alarms to indicate when the device is in motion to warn individuals nearby.
17. When in use, aerial devices shall be protected from vehicular and foot traffic using cones, barricades, or a spotter.
18. When in use, the braking system shall be used.
19. Lower controls may not be used without communicating with the individuals on the work platform, except in the case of an emergency.

B. Scissor Lift

A scissor lift is a vertical elevating work platform that is typically self-propelled and extends only in a vertical plane (8 CCR 3637).

1. Scissor lifts shall (8 CCR 3642)
 - a. Be outfitted with guardrails of at least forty-two (42) inches and have a midrail.
 - 1) Chains should be allowed at access points for the platform but may not be lower than thirty-nine (39) inches
 - 2) Guardrails shall be outfitted with at least half inch (1/2") mesh or other means of impeding falling objects if the work generates small debris or involves the use of small tools or materials (8 CCR 3646(j)).
 - b. Have toe boards of no less than three and one half (3 1/2) inches
 - c. Be at least sixteen (16) inches wide
 - d. Have an emergency lowering device
 - e. Have a fire extinguisher within five (5) feet of the control panel
 - f. Have an access ladder to the work platform when in the fully closed (down) position
 - g. Have both upper and lower control devices that are functional
 - 1) Upper control devices must be located within or beside the platform.
 - 2) Upper control devices must have a means to protect from accidental operation, such as a cover or safety interlock.
 - 3) Upper control devices must have a means for emergency stops.
 - 4) Lower control devices must be able to lower the platform if the operator becomes incapacitated.
 - h. Remain uncluttered.
2. Chains or other temporary means used for access points to the platform must be in place before the platform is raised.
3. Ladders, planks, or other objects are not allowed on scissor lifts to increase the effective height of the employee (8 CCR 3646(e)).



4. Employees are not allowed to stand or sit on guardrails at any time.
5. Employees shall position the lift to avoid extending off the platform.
 - a. The pelvis or 'belt buckle' shall always remain within the guardrails.
6. Mobile scissor lifts shall only be moved with the platform fully in the down position.
7. Scissor lifts shall only be used on firm, level ground.
8. Multiple employees may be on the platform at any time.
 - a. At least one (1) employee on the platform must have a valid operator's permit for the lift.
 - b. Employees without permits may not operate the lift, including raising or lowering the platform.
9. Personal fall protection harnesses are not required on scissor lifts.
10. Scissor lifts may not be used to transport personnel from one level to another.
11. Materials transported on a scissor lift may not extend off of the platform.

C. Boom Lifts

A boom lift may have a single, extendable arm or the arm may be articulated ('knuckle lift').

1. All employees using boom lift shall wear a personal fall harness securely attached to the basket or tub (8 CCR 3648(o)).
 - a. Under no circumstances may the harness be secured to an object outside of the basket or tub (8 CCR 3648(d)).
2. While moving the boom between locations, only one (1) employee shall be in the basket.
3. All employees in the boom lift shall have a valid operator's permit.
4. Boom lifts are for personnel only- no material may be moved between levels by way of the basket.
5. Employees are not allowed to stand or sit on the bucket or tub at any time.
6. Ladders, planks, or other objects are not allowed in the bucket or tub to increase the effective height of the employee (8 CCR 3648(e)).
7. If used on an incline, wheel chocks should be placed prior to raising the boom.
8. If present, outriggers shall be positioned on solid surfaces prior to raising the boom.
9. Booms, baskets, or tubs may not be supported (rested) on buildings or structures (8 CCR 3648(a)).
10. Employees may not walk under the boom lift or its arm while it is in operation.
 - a. Employees working near boom lift operations shall wear hard hats.

D. Personnel Lifts (8 CCR 3656)

Also referred to as 'order pickers' or 'stock pickers,' these lifts are designed to hold only one (person) and raise only in a vertical direction.

1. The unit can be moved only when the platform is less than three (3) feet off the ground and may only reach a maximum speed of 2.5 mph.



- a. The unit must come to a full stop before raising the platform.
- 2. The unit must have guardrails on all exposed sides of the platform.
 - a. If the unit does not have guardrails, a safety harness is required.
- 3. The unit must have a flashing light that activates when
 - a. The platform is higher than six (6) feet off the ground
 - b. The unit is moving.
- 4. The load capacity of the unit must never be exceeded.
- 5. The employee must always remain within the guardrails.

X. ROOF OPERATIONS

These requirements are for roofs that are more than six (6) feet from the ground or next lower level.

A. Fall Protection Requirements for Roof Work

The fall protection requirements for working on roofs will depend on the frequency and location of the operation in relation to the edge of the roof. For any of the conditions listed below, properly anchored personal fall protection devices can be used. If work on a roof regularly occurs

- 1. Less than four (4) times per year within six (6) feet or less from the edge
 - a. Personal fall protection systems can be used instead of permanent guardrails.
 - b. Safety lines and lanyards shall be attached to roof tie-backs capable of holding no less than five thousand (5000) pounds.
- 2. Less than four (4) times per year and at least six (6) feet but not more than twenty-five (25) feet from the edge
 - a. High-visibility markings or other visible warning system shall be installed fifteen (15) feet from every unguarded roof edge.
 - 1) Employees are not required to have fall protection if they do not cross this 15-foot boundary line (29 CFR 1910.28(b)(13)(iii)(B)).
- 3. More than four (4) times per year within six (6) feet or less from the edge
 - a. Guardrails shall be installed (8 CCR 3212(d)(1)).
 - 1) Guardrails shall extend at least six (6) feet beyond where the work occurs.
- 4. More than four (4) times per year and at least six (6) feet but not more than twenty-five (25) feet from the edge



- a. Control lines may be installed in lieu of guardrails (8 CCR 1671.2).
 - 1) Control lines shall
 - a) Be identified with signage (e.g., “Do not cross” or “Unguarded edge”)
 - b) Be connected on each side
 - c) Be clearly flagged at least every six (6) feet with a high-visibility material
 - d) Be between thirty-nine (39) and forty-five (45) inches high
 - e) Have a breaking strength of at least two hundred (200) pounds.

B. Other Roof Fall Hazards

- 1. Skylights shall be protected from employee approach within six (6) feet by
 - a. Skylight screens above or below the skylight
 - b. Guardrails
 - c. Personal fall protection devices, or
 - d. Covers.
- 2. Holes that are more than four (4) inches in two dimensions shall be covered
 - a. The cover shall be (8 CCR 3212(b))
 - 1) Capable of holding four hundred (400) pounds per square foot
 - 2) Secured in place so they cannot be accidentally removed or displaced
 - 3) Not raise more than one (1) inch off the walking surface (8 CCR 3212(c))
 - 4) Be clearly and durably marked “Opening- do not remove.”
- 3. Openings that are twelve (12) inches in the smallest dimension shall be guarded by a cover (as noted above) or a guardrail system.
 - a. If people may pass below the opening, then a toe board shall be installed around the opening.
- 4. Employees may not walk or store materials on glazed surfaces, including roofs, canopies, and skylights (8 CCR 3212 (f)).
 - a. If glazed surfaces must be accessed, other means shall be made available such as temporary catwalks, scaffolds, or the use of ladders.
 - 1) Employees working over glazed surfaces shall wear fall protection devices.

XI. LOADING DOCKS

Loading docks refer to areas where a vehicle makes an approach to load and offload cargo. The vehicle area is typically lower than the loading area to allow the vehicle’s deck to be a similar height to the operations.

A. Requirements

- 1. The unguarded edge does not require permanent fall protection to allow the

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approach of transport vehicles.

- a. Ramps that lead up to the dock level do require guardrail systems.
- 2. Temporary guardrails or other barriers may be installed when the dock is not actively being used.
- 3. Warning signs shall be placed indicating the presence of a loading dock on the exit doorways leading to the dock.
- 4. Loading docks higher than thirty (30) inches from the lower level shall have dock-locks to prevent the vehicle from moving or be outfitted with dock boards/dock plates.

XII. EXCAVATIONS

An excavation is the removal dirt for a construction or installation process. At depths exceeding five (5) feet, there is an increased risk of soil collapsing which could entrap workers within the excavation (8 CCR 1541.1).

The San Diego Community College District will contract out any work that requires trenches that are large enough for employees to enter that will exceed three (3) feet in depth. District employees will not be allowed to enter any excavation that is more than five (5) feet deep which is not properly shored, benched, or sloped.

XIII. TRAINING

A. All Employee Classifications

- 1. All employees shall undergo training on slips, trips and falls using the Keenan SafeColleges portal within thirty (30) days of their job assignment
 - a. Every two (2) years, thereafter, and
 - b. Whenever a new trip hazard or storage system is identified using the Keenan SafeColleges portal within thirty (30) days of their job assignment
- 2. Employees who will work with any of the following equipment will be required to undergo specific training in that equipment prior to using the equipment
 - a. Portable, rolling, or fixed ladders
 - 1) Employees who will only use single or two-step stepstools do not require additional training.
 - b. Aerial lifts
 - 1) Annual, in-person training is required for aerial lifts
 - 2) Workers will possess and have renewed their annual operating permits after successful completion of training
- 3. Employees who will work in the following environments will be required to undergo specific training regarding the fall hazards in these locations
 - a. Loading docks
 - b. Warehouses
 - c. Theater stages, including technical crews and performers
 - d. Other classifications identified by a supervisor, in consultation with Risk



Management, as requiring fall protection training.

B. Facilities Services Department

1. Facilities Services Department personnel shall undergo training in all portions of this *Program* that are relevant to their job assignment
 - a. Prior to beginning work in their job
 - b. Annually, thereafter.
2. Job classifications that must undergo training include
 - a. Painters
 - b. Electricians
 - c. HVAC Technicians
 - d. Groundskeepers who will use aerial lifts or ladders
 - e. Any other classification that will
 - 1) Use portable or fixed ladders
 - 2) Work on roofs
 - 3) Use aerial lifts
 - 4) Work in excavations
 - 5) Work in warehouses
 - 6) Work on loading docks
 - 7) Work in areas with elevation changes in excess of four (4) feet
 - 8) Other classifications identified by a supervisor as requiring fall protection training.

C. Training Records

1. All training records shall be kept by the supervisor for at least three (3) years.

APPENDIX A: Aerial Device Operating Permit

<p>_____</p> <p>has completed the necessary training and is authorized to use:</p> <p> <input type="checkbox"/> Boom lift <input type="checkbox"/> Scissor lift <input type="checkbox"/> Personal lift </p> <p>Manufacturer:: _____ Make: _____</p> <p>Model: _____</p> <p style="text-align: right;">Expires: _____ 20____</p>	 SAN DIEGO Community College District
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Supervisor

This card should be completed by the supervisor, laminated, and given to the employee after training is completed and competency is demonstrated.

APPENDIX B: Aerial Lift Inspection Log

<input type="checkbox"/> Boom lift <input type="checkbox"/> Scissor lift <input type="checkbox"/> Personal lift		Manufacturer:			Make:					
Model:			Serial Number:			Facility:				
Date	Initials	Condition	Visual inspection		Controls Work?		Safety Mechanism Works?		Action	
			Pass	Fail	Y	N	Y	N	Used	Tagged out
		Good Other								

TRAINING RECORD

Facility: _____

Date	Time	Instructor		
Name (print)	Signature	Department	Supervisor	