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I. Introduction

Gettysburg College is responsibility for the protection of our employee and have established a Fall Prevention Program. The Fall Protection Program in accordance with OSHA 29 CFR 1910 and 1926” establishes basic safety principles and work practices that are capable of protecting employees who are performing general industry work above 4 feet or construction work above 6 feet at Gettysburg College. This document is intended only to highlight those safety measures necessary for achieving a safe and healthy work environment. Where the scope of hazards is not adequately addressed by this general document, the workplace supervisor must develop specific Standard Operating Procedures.

A. Scope and Application

All employees of Gettysburg College performing work with a fall potential of greater than 4 feet must comply with this document.

B. Responsibilities

- Supervisors are responsible for ensuring their employees are trained and take the necessary precautions to prevent falls.
- Director of Life and Fire Safety Services provides training on fall prevention and protection requirements.

C. Availability

The Gettysburg College Fall Prevention Program shall be readily available to employees and employee representatives through their supervisor.
II.  Fall Prevention

A.  Walking & Working Surfaces

The college maintains a slip resistant shoe program to address certain job functions that have a wet hazard. Dining Services, Housekeeping and Public Safety all supply employees with slip resistant footwear. See Slip Resistant Shoe Program

B.  Ladders- See Ladder Safety Program

Select the right ladder for the task. The ladder’s type is determined by how much weight it can support. The ladder should be selected to be sufficient for your weight plus the weight of any tools and materials you’re carrying.

TYPE 1A-Extra-heavy industrial ladder will support 300 lbs.

TYPE 1-Heavy-duty industrial ladder will support 250 lbs.

TYPE 2-Medium-duty commercial ladder will support 225 lbs.

TYPE 3-Light-duty household ladder will support 200 lbs.

Barricade or set up cones at the ladder’s base when using a ladder in an aisle or corridor. In some situations a second person maybe required to assist and hold the ladder or help secure the area.

Step Ladders

Inspect the ladder before using it. Remove defective ladders from service and notify your supervisor.

- Always open and set the ladder level on all four feet on a firm base, lock spreaders in place
- Never use a stepladder like a straight ladder
- Never climb higher than the second thread or rung from the top.
- Do not place tools or materials on the steps.
- Do not place a ladder in front of a door that opens toward it unless the door is locked, blocked or guarded by someone.
- Keep both feet on the ladder. Do not reach out too far or place one foot on some other surface.
- Only one person is to be on a ladder at any time.
- Do not use ladders for skids, braces, workbenches or any other purpose other than climbing.
- Two people may be required when working from a ladder of any height, check with your supervisor before starting the task.

Straight and Extended Ladders

Extension ladders should have proper overlap, depending on their length.

- Three foot overlap for 32-foot ladder
- Four foot overlap for 32- to 36-foot ladder
- Five foot overlap for 36- to 48-foot ladder
- Six foot overlap for 48-foot ladder
✓ Inspect ladders before using them. Remove defective ladders from service and notify your supervisor.
✓ Use the four to one ratio when placing a ladder into service. Place the ladder so that its feet are one foot away from what it leans against for every four feet in height to the point where the top of the ladder rests.
✓ Place the ladder’s feet on a substantial and level base, not on movable objects.
✓ The top of the ladder must be adequately tied off at the top to prevent slipping.
✓ The top of the ladder must extend at least three feet beyond the supporting object when used as access to an elevated work area such as a roof. This allows ample mounting and dismounting onto the work area.
✓ Hold onto the ladder with both hands when going up or down. If material must be handled, raise or lower it with a rope.
✓ Always face the ladder when climbing up, climbing down or when working.
✓ Be sure that your shoes are not greasy, muddy, or slippery before climbing.
✓ Check the rungs for grease, mud and other debris and remove it before climbing the ladder.
✓ Do not climb higher than the third rung from the top on a straight or extension ladder.

C. Scaffolding

Scope, Application, & Responsibility

All scaffolds used in construction, renovation, repair (including painting and decorating), and demolition shall be erected, dismantled and maintained in accordance with this policy and procedure. These procedures will be reviewed and updated as needed to comply with new OSHA regulations, new best practices in scaffolding.

Competent Persons are responsible for the following:

- Not to inter mix scaffold components manufactured by different manufacturers unless the components fit together without force and the scaffold’s structural integrity is maintained. Scaffold components manufactured by different manufacturers will not be modified in order to inter mix them unless the Competent Person determines the resulting scaffold is structurally sound.

- Evaluating all direct connections and to confirm, based on that evaluation, that the supporting surfaces are capable of supporting the loads to be imposed before a suspension scaffold may be used.

- Inspecting all suspension scaffold ropes prior to each work shift and after every occurrence which could affect a rope’s integrity. Ropes shall be replaced if any of the conditions outlined in 29 CFR 1926.451(d)(10) exist.

- Directly supervising the erection, moving, dismantling, or altering of all scaffolds used by department employees.

Qualified Persons - Shall be responsible for the following:

- The design, construction and loading of all scaffolds.

- Ensuring that swaged attachments or spliced eyes on wire suspension scaffolds are not used unless they are made by the wire rope manufacturer.
Training each employee who performs work while on a scaffold to recognize the hazards employed with the type of scaffold being used and to understand the procedures to control or to minimize those hazards. This training is to be documented and signed copies to be given to the Department Supervisor

1. Fall Protection

- All employees working on scaffolds six feet or more above ground/floor level shall use fall protection.
- All scaffolding shall have toeboards, screens, a guardrail system and/or debris nets as determined by a competent person.

2. College Owned Scaffolding

- All college owned scaffolding is under the responsibility of the grounds department within Facilities Services.
- The Grounds Department maintains, inspects and trains its employees on the safe erection of scaffolding equipment.
- Any time a department wishes to use scaffolding may contact the Grounds Department Supervisor.
- Users of the scaffolding must be given a general safety instruction by the Grounds Department and/or Life Safety Services.
- Athletic Department uses scaffolding on a regular basis throughout the year for many different purposes. Those individuals assigned by Athletics are responsible for working from scaffolding must be trained before being allowed to climb any scaffolding

3. Aerial Platforms

Scope & Application

To outline the safe operating procedures of aerial platforms, aerial ladders, articulating boom platforms, vertical towers, ladder trucks, or a combination of such devices used to elevate employees to job-sites above ground and to prevent serious accidents from occurring while operating these devices. This procedure applies to the above devices owned by Gettysburg College or leased by Gettysburg, which are operated by college employees

General Operating Procedures

The following general operating procedures shall be followed:

- Only authorized (those who have been properly trained and certified) employees shall operate an aerial platform/lift, extensible boom platform, aerial ladders, articulating boom platforms, vertical towers, ladder trucks, tower trucks, or any combination of such devices.

- An employee who is to serve as an operator or a worker who is to perform work from any aerial lift shall be trained on this procedure and on the operating manual of the specific device which is to be operated or work performed from.

- Employees who are scheduled to perform routine maintenance, inspections, or to repair any aerial lift shall have received training on this procedure and on the operating manual of the specific device prior to performing any work on that device.

Note: Operating and maintenance manuals should be obtained from the manufacturer of the aerial platform.
• A body harness shall be worn and a lanyard attached to the boom or basket when working from an aerial lift/platform

• A copy of this procedure, the ANSI Standards Manual, the operating manual, maintenance manual, and the log of inspections shall be kept with each aerial platform. These documents are considered an integral part of the aerial platform and are vital to communicate necessary safety information to users and operators.

• No aerial platform shall be modified or altered without the modifications or alterations being approved and certified in writing by the manufacturer. Records of all approved modifications and alterations, including written authorization from the manufacturer for the modification or alteration, shall be kept with the aerial platform as part of the operating and maintenance manual. The altering or disabling of interlocks or other safety devices is prohibited.

• All Manufacture’s Safety Bulletins shall be complied with as received from the manufacturer or dealer and copies of them kept with the aerial platform as part of the operating and maintenance manuals.

• Care shall be taken to prevent rope, electric cords, hoses, etc., from becoming entangled in the aerial platform.

• Aerial platform rated capacities shall not be exceeded when loads are transferred to the platform at any height.

• The operator shall ensure that the area surrounding the aerial platform is clear of personnel and equipment before lowering the platform.

• The engine shall be shut down while fuel tanks are being filled. Fueling shall be done in a well-ventilated area free of flame, sparks, or other hazards that may cause fire or explosion.

• Batteries shall be charged in a well-ventilated area free of flame, sparks, or other hazards that may cause fire or explosion.

• The aerial platform shall not be positioned against another object to steady the platform.

• The aerial platform shall not be used as a crane.

• The aerial platform shall not be operated from a position on trucks, trailers, railway cars, floating vessels, scaffolds, or similar equipment, unless the application is approved in writing by the manufacturer

• Under all travel conditions, the operator shall limit travel speed according to conditions of ground surface, congestion, visibility, slope, locations of personnel, and other factors causing hazards of collision or injury to personnel.

• Means shall be used to protect against use by unauthorized person(s).

• The operator shall cease operation of the aerial platform in case of any suspected malfunctions, any hazard, or potentially unsafe condition that may be encountered. The aerial platform and/or the work area shall then be inspected and any malfunction or problem shall be corrected before further operation of the platform.

• The operator shall immediately report any problems or malfunctions that become evident during operation of the aerial platform to the supervisor.
Preoperational Inspections

Before authorizing an employee to operate an aerial platform the supervisor shall:

- Ensure that employee who will be working on the aerial platform has been properly trained on this procedure, the operating manual of the particular type of aerial platform to be used, and that this training has been properly documented.

- Determine that the purpose for which the aerial platform is to be used is within the scope of the intended applications defined by the manufacturer.

- Provide approved fall protection devices and other safety gear for all employees who will be working on the platform.

- The supervisor as needed shall direct each operator to ensure the following before each elevation of the platform:
  
  - That the aerial platform is operated on a surface within the limits specified by the manufacturer.
  - That the outriggers, stabilizers, extendable axles, or other stabilizing methods are used as required by the manufacturer.
  - That guardrails are installed and access gates or openings are closed per manufacturer's instructions.
  - That the load and its distribution on the platform and any platform extension are in accordance with the manufacturer's rated capacity for that specific configuration.
  - That there is adequate clearance from overhead obstructions.
  - That the minimum safe approach distances to energized power lines and parts are maintained.
  - That all safety precautions defined in this procedure and the Operating and Maintenance Manual for the particular model of aerial platform being used are followed during the operation of the aerial platform.
  - That all employees maintain a firm footing, with both feet, on the platform floor while working thereon. The use of planks, ladders, or any other device on the aerial platform for achieving additional height or reach is prohibited.
  - Special precautions shall be taken when other moving equipment or vehicles are present to comply with local ordinances or safety standards established for the workplace. Warnings such as but not limited to: flags, roped off areas, flashing lights, and barricades shall be used.

Before operating an aerial platform, the employee shall

- visually inspect the aerial platform and conduct a functional test (a check list shall be utilized for this purpose) including but not limited to the following:

  - Operating and emergency controls.
  - Safety devices.
  - Personal protective devices including fall protection.
  - Air, hydraulic, and fuel system leaks.
  - Cables and wiring harness.
  - Loose and missing parts.
  - Tires and wheels.
✓ Placards, warnings, and control markings.
✓ Outriggers, stabilizers, and other structures.
✓ Guardrail system.
✓ Items specified by the manufacturer.

- Check the area in which the aerial platform is to be used for possible hazards such as, but not limited to:
  ✓ Drop-offs or holes.
  ✓ Bumps or floor obstructions.
  ✓ Debris.
  ✓ Overhead obstructions and high voltage conductors.
  ✓ Hazardous locations.
  ✓ Inadequate surface and support to withstand all load forces imposed by the aerial platform in all operating configurations.
  ✓ Wind and weather conditions.
  ✓ Other possible unsafe conditions.
  ✓ Presence of unauthorized persons.

Maintenance

A preventive maintenance program shall be established for each aerial platform in use at the college, by the responsible department, in accordance with the manufacturer's recommendations and based on the environment and the severity of use of the aerial platform.

Aerial platforms that are not in proper operating condition shall be removed from service until repaired. A warning tag stating "DO NOT USE" shall be attached to the control panel of the aerial platform.

Written records of all inspections shall include the deficiencies found, corrective action taken, the date of the inspection and the date of the corrective action along with the name of the person(s) performing the inspection and the corrective action. Written records shall be kept with the aerial platform as part of the operating and maintenance manual and a copy kept on file by the department.

When parts or components are replaced, they shall be identical or equivalent to the original aerial platform parts or components.

a. Frequent Inspections

- Frequent inspections shall be made every three months or 150 hours of operating time on all aerial platforms.
- An inspection shall be made prior to use if the aerial platform has been out of service for a period longer than three months.
- These frequent inspections shall be made by a person qualified (trained) as a mechanic on the specific make and model of the aerial platform.
- The inspection shall include all items specified by the manufacturer for a frequent inspection and shall include, but not be limited to the following:
  ✓ All functions and their control for speed(s), smoothness, and limits of motion.
  ✓ Emergency lowering mechanism.
✓ All chain and cable mechanisms for adjustment and worn or damaged parts.
✓ All emergency and safety devices.
✓ Lubrication of all moving parts, inspection of filter element(s), hydraulic oil, engine oil, and coolant, as specified by the manufacturer.
✓ Visual inspection of structural components and other critical components, such as fasteners, pins, shafts, and locking devices.
✓ Placards, warnings, and control markings.
✓ Items specified by the manufacturer.
✓ Correction of all malfunctions and problems identified and further inspection, if necessary, shall be performed before the aerial platform is returned to service.
✓ Written documentation of all quarterly inspections shall be kept with the aerial platform and a copy kept on file by the department.

b. Periodic Inspections

Periodic inspections shall be made by a person qualified as a mechanic on the specific make and model of the aerial platform. The inspection shall include all items specified by the manufacturer for an annual inspection. NOTE: This inspection is usually a part of the service contract on the aerial platform and is performed by a manufacturer’s representative.

c. Maintenance Safety Precautions

Before adjustments and/or repairs are started on an aerial platform, the following precautions shall be taken as applicable:

✓ The platform shall be lowered to the full down position, if possible, or otherwise secured by blocking and cribbing to prevent dropping.
✓ All controls shall be in the "off" position and all operating features secured from inadvertent motion by brakes, blocks, or other means.
✓ The power plant shall be stopped and "Locked Out" to prevent inadvertent starting.
✓ Hydraulic oil pressure shall be relieved from all hydraulic circuits before loosening or removing hydraulic components.
✓ Safety props or latches shall be installed where applicable as described by the manufacturer.
✓ Any additional precautions specified by the manufacturer shall be followed.

4. Scissors Lifts

Gettysburg owns and leases several scissor lift vehicles for a multitude of purposes. Each college department that owns or leases these lifts is subject to this policy, manufactures requirements as well as interdepartmental policies regarding these lifts.

- General Safety Procedures

✓ Competent persons are competent, trained and responsible for training and condition of lifts on campus.
✓ Only authorized qualified trained persons are permitted operate the lifts.
Non-authorized persons may accompany an authorized person.
Never operate in winds greater than 20 mph
Never operate during severe weather. IE: Lighting, rain, snow, ice
Never move lift while people are outside on the lift elevated
Always operate on level solid ground
Conduct a site inspection for safety hazards
If working near traffic, set up work-zone warnings, like cones and signs
Identify over head hazards such as electrical lines
Non-electrical workers must stay at least 10 feet away from overhead power lines.
Electrical workers must de-energize/insulate power lines or use proper personal protective equipment and tools.
Keep feet on the floor of the lift, do not climb on the guide rails
Always keep safety chain or access rail locked in place when in lift.
Fall protection is not required as long as workers remain inside the guardrail system.
Fall protection is required if any leaning or strenuous work is being performed.

• **College Owned Lifts**

  ✓ Each department that is assigned a college owned lift must have a competent person that is responsible for it operation, inspections, training and condition.
  ✓ Life Safety Services will provide periodic training and inspections on lift operations as needed.
  ✓ These lifts maybe borrowed by contractors/vendors of the college provided that the competent person of that lift has provided training to that contractor/vendor’s employees to ensure that they are authorized persons who can operate the lift.
  ✓ Documentation must be maintained on all lift qualified trained persons on all college lifts employee and non employee.

• **Leased Scissors Lifts**

  ➢ Any department wishing to lease a lift that doesn’t have a competent person must contact Public Safety- Life Safety Services in advance to develop a usage plan that will include scope of work, safety guidelines and training of users. Life Safety Services will appoint a competent person to work with that department on the process.
  ➢ All leased lifts must be delivered to a college employee who is designated as a competent person to operate and train others on the operation.
  ➢ The college competent person will be response for signing for the delivery of the leased lift, inspecting to ensure it is operating properly, owner’s manual is present and all safety devices are in place.
  ➢ Then that competent person is responsible for training other employees and/or non employees on its safe operation to be known as authorized persons.
  ➢ This training will be documented and require field training with actual hands on operation of the lift,
  ➢ Qualified persons will follow above general safety guidelines at all times.

5. **Construction**

  **Scope & Application**

  In certain applications, college employees will perform job tasks that are considered a construction field job task and must comply with standards set forth in OSHA 1926. This section sets forth requirements for employers to provide fall protection systems. All fall protection required by this section shall conform to the criteria set forth in 1926.502
The employer shall determine if the walking/working surfaces on which its employees are to work have the strength and structural integrity to support employees safely. Employees shall be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.

General Operating Procedures

a. Unprotected Sides and Edges

Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.

b. Leading Edges

Leading edge means the edge of a floor, roof, or formwork for a floor or other walking/working surface (such as the deck) which changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed. A leading edge is considered to be an "unprotected side and edge" during periods when it is not actively and continuously under construction.

Each employee who is constructing a leading edge 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems. Exception: When the college can demonstrate that it is infeasible or creates a greater hazard to use these systems, the college shall develop and implement a fall protection plan.

Each employee on a walking/working surface 6 feet or more above a lower level where leading edges are under construction, but who is not engaged in the leading edge work, shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system. If a guardrail system is chosen to provide the fall protection, and a controlled access zone has already been established for leading edge work, the control line may be used in lieu of a guardrail along the edge that parallels the leading edge.

c. Hoist Areas

Each employee in a hoist area shall be protected from falling 6 feet or more to lower levels by guardrail systems or personal fall arrest systems. If guardrail systems, [or chain, gate, or guardrail] or portions thereof, are removed to facilitate the hoisting operation (e.g., during landing of materials), and an employee must lean through the access opening or out over the edge of the access opening (to receive or guide equipment and materials, for example), that employee shall be protected from fall hazards by a personal fall arrest system.

d. Holes

Each employee on walking/working surfaces shall be protected from falling through holes (including skylights) more than 6 feet above lower levels, by personal fall arrest systems, covers, or guardrail systems erected around such holes.

Each employee on a walking/working surface shall be protected from tripping in or stepping into or through holes (including skylights) by covers. Each employee on a walking/working surface shall be protected from objects falling through holes (including skylights) by covers.
c. Formwork and Reinforcing Steel

Each employee on the face of formwork or reinforcing steel shall be protected from falling 6 feet or more to lower levels by personal fall arrest systems, safety net systems, or positioning device systems.

d. Ramps, Runways, and other Walkways

Each employee on ramps, runways, and other walkways shall be protected from falling 6 feet or more to lower levels by guardrail systems.

e. Excavations

Each employee at the edge of an excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences, or barricades when the excavations are not readily seen because of plant growth or other visual barrier;

Each employee at the edge of a well, pit, shaft, and similar excavation 6 feet or more in depth shall be protected from falling by guardrail systems, fences, barricades, or covers.

f. Dangerous Equipment

Each employee less than 6 feet above dangerous equipment shall be protected from falling into or onto the dangerous equipment by guardrail systems or by equipment guards.

Each employee 6 feet or more above dangerous equipment shall be protected from fall hazards by guardrail systems, personal fall arrest systems, or safety net systems.

i. Overhand Bricklaying and Related Work

Except as otherwise provided, each employee performing overhand bricklaying and related work 6 feet or more above lower levels, shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or shall work in a controlled access zone.

Each employee reaching more than 10 inches below the level of the walking/working surface on which they are working, shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system.

j. Roofing on Low-slope Roofs

Except as otherwise provided, each employee engaged in roofing activities on low-slope roofs, with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, personal fall arrest systems, or a combination of warning line system and guardrail system, warning line system and safety net system, or warning line system and personal fall arrest system, or warning line system and safety monitoring system. Or, on roofs 50-feet or less, the use of a safety monitoring system alone is permitted.

k. Steep Roofs

Each employee on a steep roof with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.
1. Pre-cast Concrete Erection

Each employee engaged in the erection of pre-cast concrete members (including, but not limited to the erection of wall panels, columns, beams, and floor and roof "tees") and related operations such as grouting of pre-cast concrete members, who is 6 feet or more above lower levels shall be protected from falling by guardrail systems, safety net systems, or personal fall arrest systems, unless another provision provides for an alternative fall protection measure. Exception: When the college can demonstrate that it is infeasible or creates a greater hazard to use these systems, the college shall develop and implement a fall protection plan.

m. Residential Construction

Each employee engaged in residential construction activities 6 feet or more above lower levels shall be protected by guardrail systems, safety net system, or personal fall arrest system unless another provision provides for an alternative fall protection measure. Exception: When the college can demonstrate that it is infeasible or creates a greater hazard to use these systems, the college shall develop and implement a fall protection plan.

n. Wall Openings

Each employee working on, at, above, or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6 feet or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches above the walking/working surface, shall be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

o. Walking/Working Surfaces not otherwise addressed

Each employee on a walking/working surface 6 feet or more above lower levels shall be protected from falling by a guardrail system, safety net system, or personal fall arrest system.

p. Falling Object Protection

When an employee is exposed to falling objects, the employer shall have each employee wear a hard hat and shall implement one of the following measures:

Erect toeboards, screens, or guardrail systems to prevent objects from falling from higher levels; or,

Erect a canopy structure and keep potential fall objects far enough from the edge of the higher level so that those objects would not go over the edge if they were accidentally displaced; or

Barricade the area to which objects could fall, prohibit employees from entering the barricaded area, and keep objects that may fall far enough away from the edge of a higher level so that those objects would not go over the edge if they were accidentally displaced.

6. Fall Protection Systems

Gettysburg College shall provide and install all fall protection systems required for an employee, and shall comply with all other pertinent requirements before that employee begins the work that necessitates the fall protection.
The fall protection plan shall identify each location where conventional fall protection methods cannot be used. These locations shall then be classified as controlled access zones and the employer must comply with the criteria in Section 6 of this part.

The College shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.

7. Guardrail Systems

Top edge height of top rails, or equivalent guardrail system members, shall be 42 inches plus or minus 3 inches above the walking/working level. When conditions warrant, the height of the top edge may exceed the 45-inch height, provided the guardrail system meets all other criteria of this paragraph.

Note: When employees are using stilts, the top edge height of the top rail, or equivalent member, shall be increased an amount equal to the height of the stilts.

Mid-rails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members shall be installed between the top edge of the guardrail system and the walking/working surface when there is no wall or parapet wall at least 21 inches high.

Mid-rails, when used, shall be installed at a height midway between the top edge of the guardrail system and the walking/working level.

Screens and mesh, when used, shall extend from the top rail to the walking/working level and along the entire opening between top rail supports.

Intermediate members (such as balusters), when used between posts, shall be not more than 19 inches apart.

Other structural members (such as additional mid-rails and architectural panels) shall be installed such that there are no openings in the guardrail system that are more than 19 inches wide.

Guardrail systems shall be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge.

When the 200 pound test load is applied in a downward direction, the top edge of the guardrail shall not deflect to a height less than 39 inches above the walking/working level.

Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members shall be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the mid-rail or other member.

Guardrail systems shall be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing. The ends of all top rails and mid-rails shall not overhang the terminal posts, except where such overhang does not constitute a projection hazard. Steel banding and plastic banding shall not be used as top rails or mid-rails.

Top rails and mid-rails shall be at least one-quarter inch nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it shall be flagged at not more than 6-foot intervals with high-visibility material.
When guardrail systems are used at hoisting areas, a chain, gate or removable guardrail section shall be placed across the access opening between guardrail sections when hoisting operations are not taking place.

When guardrail systems are used at holes, they shall be erected on all unprotected sides or edges of the hole.

When guardrail systems are used around holes used for the passage of materials, the hole shall have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it shall be closed over with a cover, or a guardrail system shall be provided along all unprotected sides or edges.

When guardrail systems are used around holes which are used as points of access (such as ladder-ways), they shall be provided with a gate, or be so offset that a person cannot walk directly into the hole.

Guardrail systems used on ramps and runways shall be erected along each unprotected side or edge.

Manila, plastic or synthetic rope being used for top rails or mid-rails shall be inspected as frequently as necessary to ensure that it continues to meet the strength requirements.

8. Personal Fall Arrest Systems

Personal fall arrest systems shall not be attached to guardrail systems, nor shall they be attached to hoists except as specified in this document.

When a personal fall arrest system is used at hoist areas, it shall be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.

Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable and is regulated.

a. Connectors

Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

Dee-rings and snap hooks shall have a minimum tensile strength of 5,000 lbs. Dee-rings and snap hooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.

Only locking connectors shall be used.

Unless the snap-hook is designed for the following connections, snap-hooks shall not be engaged:

- directly to webbing, rope or wire rope;
- to each other;
- to a Dee-ring to which another snap-hook or other connector is attached;
- to a horizontal lifeline; or
b. Lanyards & Lifelines

Horizontal lifelines shall be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds. When vertical lifelines are used, each employee shall be attached to a separate lifeline. Except during the following:

- During the construction of elevator shafts, two employees may be attached to the same lifeline in the hoist way, provided both employees are working atop a false car that is equipped with guardrails; the strength of the lifeline is 10,000 pounds [5,000 pounds per employee attached] and all other criteria specified in this paragraph for lifelines have been met.

Lifelines shall be protected against being cut or abraded.

Self-retracting lifelines and lanyards which automatically limit free fall distance to 2 feet or less shall be capable of sustaining a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet or less, rip stitch lanyards, and tearing and deforming lanyards shall be capable of sustaining a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.

Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body harnesses shall be made from synthetic fibers.

c. Anchorages

Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used as follows:

- as part of a complete personal fall arrest system which maintains a safety factor of at least two; and
- Under the supervision of a qualified person.

d. Harnesses

When stopping a fall, personal fall arrest systems, shall:

- limit maximum arresting force on an employee to 1,800 pounds when used with a body harness;
- be rigged such that an employee can neither free fall more than 6 feet nor contact any lower level;
o bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet and,
o have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet or the free fall distance permitted by the system, whichever is less.

The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.

Harnesses shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

e. Maintenance

Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service.

9. Positioning Device Systems

Effective January 1, 1998, body belts are not acceptable as part of a personal fall arrest system. Note: The use of a body belt in a positioning device system is acceptable and is regulated.

Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet. Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, which ever is greater.

Connectors shall be drop forged, pressed or formed steel, or made of equivalent materials. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of this system. Connecting assemblies shall have a minimum tensile strength of 5,000 pounds.

Dee-rings and snap-hooks shall be proof-tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.

Only locking connectors shall be used.

Unless the snap-hook is designed for the following connections, snap-hooks shall not be engaged:

- directly to webbing, rope or wire rope;
- to each other;
- to a Dee-ring to which another snap-hook or other connector is attached; or
- to a horizontal lifeline

Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration and defective components shall be removed from service.

Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

10. Warning Line Systems
The warning line shall be erected around all sides of the roof work area. When mechanical equipment is not being used, the warning line shall be erected not less than 6 feet from the roof edge.

When mechanical equipment is being used, the warning line shall be erected not less than 6 feet from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet from the roof edge which is perpendicular to the direction of mechanical equipment operation. Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.

When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.

Warning lines shall consist of ropes, wires, or chains and supporting stanchions erected as follows:

- The rope, wire, or chain shall be flagged at not more than 6-foot intervals with high-visibility material;
- The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface;
- After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall be capable of supporting, without breaking a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

No employee shall be allowed in the area between a roof edge and a warning line unless the employee is performing roofing work in that area.

Mechanical equipment on roofs shall be used or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.

11. Controlled Access Zones

When used to control access to areas where leading edge and other operations are taking place the controlled access zone shall be defined by a control line or by any other means that restricts access.

When control lines are used, they shall be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when erecting pre-cast concrete members.
When erecting pre-cast concrete members, the control line shall be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge.

The control line shall extend along the entire length of the unprotected or leading edge and shall be approximately parallel to the unprotected or leading edge. The control line shall be connected on each side to a guardrail system or wall.

When used to control access to areas where overhand bricklaying and related work are taking place:

- The controlled access zone shall be defined by a control line erected not less than 10 feet nor more than 15 feet from the working edge.
- The control line shall extend for a distance sufficient for the controlled access zone to enclose all employees performing overhand bricklaying and related work at the working edge and shall be approximately parallel to the working edge.
- Additional control lines shall be erected at each end to enclose the controlled access zone.
- Only employees engaged in overhand bricklaying or related work shall be permitted in the controlled access zone.

Control lines shall consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:

- Each line shall be flagged or otherwise clearly marked at not more than 6-foot intervals with high-visibility material.
- Each line shall be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches from the walking/working surface and its highest point is not more than 45 inches [50 inches when overhand bricklaying operations are being performed] from the walking/working surface.
- Each line shall have a minimum breaking strength of 200 pounds.
- On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones shall be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas.
- On floors and roofs where guardrail systems are in place, but need to be removed to allow overhand bricklaying work or leading edge work to take place, only that portion of the guardrail necessary to accomplish that day’s work shall be removed.

12. Safety Monitoring Systems

The college has designated college administrators and staff supervisors to monitor the safety of other employees and the college shall ensure that the safety monitors complies with the following requirements:

- The safety monitor shall be competent to recognize fall hazards;
- The safety monitor shall warn the employee when it appears that the employee is unaware of a fall hazard or is acting in an unsafe manner;
- The safety monitor shall be on the same walking/working surface and within visual sighting distance of the employee being monitored;
- The safety monitor shall be close enough to communicate orally with the employee; and
- The safety monitor shall not have other responsibilities which could take the monitor's attention from the monitoring function.
- Mechanical equipment shall not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-slope roofs.
• No employee, other than an employee engaged in roofing work [on low-sloped roofs] or an employee covered by a fall protection plan, shall be allowed in an area where an employee is being protected by a safety monitoring system.
• Each employee working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.

13. Covers

Covers for holes in floors, roofs, and other walking/working surfaces shall meet the following requirements:

• Covers located in roadways and vehicular aisles shall be capable of supporting, without failure, at least twice the maximum axle load of the largest vehicle expected to cross over the cover.
• All other covers shall be capable of supporting, without failure, at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time.
• All covers shall be secured when installed so as to prevent accidental displacement by the wind, equipment, or employees.
• All covers shall be color coded or they shall be marked with the word "HOLE" or "COVER" to provide warning of the hazard.

Note: This provision does not apply to cast iron manhole covers or steel grates used on streets or roadways.

14. Falling Object Protection

Falling object protection shall comply with the following provisions:

• Toeboards, when used as falling object protection, shall be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.
• Toeboards shall be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point along the toeboard.
• Toeboards shall be a minimum of 3 1/2 inches in vertical height from their top edge to the level of the walking/working surface. They shall have not more than 1/4 inch clearance above the walking/working surface. They shall be solid or have openings not over 1 inch in greatest dimension.
• Where tools, equipment, or materials are piled higher than the top edge of a toeboard, paneling or screening shall be erected from the walking/working surface or toeboard to the top of a guardrail system's top rail or mid-rail, for a distance sufficient to protect employees below.
• Guardrail systems, when used as falling object protection, shall have all openings small enough to prevent passage of potential falling objects.
• During the performance of overhand bricklaying and related work:
  o No materials or equipment except masonry and mortar shall be stored within 4 feet of the working edge.
  o Excess mortar, broken or scattered masonry units, and all other materials and debris shall be kept clear from the work area by removal at regular intervals.
• During the performance of roofing work:
  o Materials and equipment shall not be stored within 6 feet of a roof edge unless guardrails are erected at the edge.
  o Materials which are piled, grouped, or stacked near a roof edge shall be stable and self-supporting.
- Canopies, when used as falling object protection, shall be strong enough to prevent collapse and to prevent penetration by any objects which may fall onto the canopy.

III. Training

A. Ladders

All employees who use and climb ladders shall be trained by a department supervisor on ladder safety.

B. Scaffolding

1. Training

All employees who perform work on a scaffold shall be trained to recognize the hazards associated with the type of scaffold being used and the procedures to control or minimize those hazards. Training is provided by each department that requires the use of scaffolding. Employees shall be trained to demonstrate competency in the following areas:

- Nature of electrical, fall hazards and falling object hazards in the work area;
- Proper use of scaffolds;
- Proper handling of materials on scaffolds;
- Proper erecting, maintaining and disassembling of fall protection systems;
- Proper construction, use, placement and care in handling of scaffolds; and
- Maximum intended load and load-carrying capacities of scaffolds used.

Competent Person

- Must be knowledgeable about the requirements of the various scaffold standards and have sufficient training or knowledge to identify and sufficient authority to correct hazards encountered in scaffold work.

- Must have specific training in and be knowledgeable regarding the structural integrity of scaffolds and procedures needed to maintain them. For example, a competent person must be able to evaluate the effects of such potentially damage-causing occurrences as a dropped load or a truck backing into a supporting leg.

Qualified Person(s)- Must have the training necessary to design scaffolds, solve and resolve problems related to the subject matter, the work or the project by virtue of a recognized degree, certificate, or professional standing, or by extensive knowledge, training and experience.

2. Retraining
When there is reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, the employee shall be re-trained so that the requisite proficiency is regained. Retraining shall be done in at least the following situations:

- Where changes at the worksite present a hazard about which the employee has not been previously trained.
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained.
- Where inadequacies in an affected employee’s work involving scaffolds indicate that the employee has not retained the requisite proficiency.

C. Aerial Platforms

1. Training

All college employees who are scheduled to perform the functions of operators of aerial platforms or maintenance on aerial platforms shall have been trained on this procedure, either on the same model of aerial platform or one having operating characteristics and controls consistent with the one to be used during actual work site operation. Operator and maintenance training shall include, but not be limited to the following before actually operating the aerial platform or performing maintenance on an aerial platform:

- Know the intended purpose and function of each of the controls.
- Read or been instructed on and understand the manufacturer's operating instructions, maintenance manual and safety rules.
- Read or been instructed on all decals, warnings, and instructions displayed on the aerial platform.
- In addition, maintenance employees shall be instructed in performing frequent (every three months or 150 hours of operation, whichever occurs first) inspections of all aerial platforms maintained by the college.

The operator trainee shall operate the aerial platform in an area free of obstructions under the direction of the qualified person for a time sufficient to determine that the trainee displays proficiency in knowledge and actual operation of the aerial platform. Only properly trained and authorized employees shall be permitted to operate any aerial platform. Only properly trained maintenance employees shall be permitted to perform inspections and required maintenance of aerial platforms.

The college shall verify compliance by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature and affiliation of the person who conducted the training, topics covered, original written tests and the signature of the employee. The latest training certification shall be maintained for at least three years after employment by the department.

2. Retraining

Retraining shall take place every three years and whenever a new model aerial platform is acquired or rented by the college, or when an employee demonstrates less than proficiency in the operation or maintenance of aerial platforms.
D. Construction

1. Training

The college shall provide a training program for each non employee who might be exposed to fall hazards. The program shall enable each employee to recognize the hazards of falling and shall train each employee in the procedures to be followed in order to minimize these hazards.

The College shall assure that each non employee has been trained, as necessary, by a competent person qualified in the following areas:

- The nature of fall hazards in the work area;
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used;
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used;
- The role of each employee in the safety monitoring system when this system is used;
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roofs; and
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection

The college shall verify compliance by preparing a written certification record. The written certification record shall contain the name or other identity of the employee trained, the date(s) of the training, and the signature and affiliation of the person who conducted the training, topics covered original written tests and the signature of the employee. The latest training certification shall be maintained for at least three years after employment by the department.

2. Retraining

When the college has reason to believe that any affected employee who has already been trained does not have the understanding and skill required, the college shall retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete; or
- Changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill.

IV. Program Evaluation

This plan will be reviewed periodically by the Associate Director of Environmental and Safety Services to ensure current standards and practices are being followed and update the policy to meet with new standards and practices.

V. Record Keeping

A. Employee Records

The following records shall be maintained for a minimum of three years after an employee terminates their employment by the responsible department.
• Employees trained in ladder safety
• Employees trained as operators of each model of aerial platform.
• Employee trained to perform maintenance and inspections on each model of aerial platform.
• Employees trained to be Competent Person for Scaffolding
• Employees trained to be Qualified Persons for Scaffolding
• Employees trained on Fall Protection for Construction.

B. Equipment Records

The following records shall be maintained for a minimum of three years by the responsible department.

• Complete inventory of portable ladders.
• Ladder inspections.
• Scaffolding equipment inspections.
• Written records of inspections by each aerial platform owned or rented by the college (if rented for a period of time to require frequent or annual inspection, e.g. 150 hours operation or three months). These records shall include the date of the inspection, model and serial number of the aerial platform, name and affiliation of the person performing the inspection, any deficiencies found, and the corrective action recommended.
• Written records of all repairs accomplished on each aerial platform owned or rented by the college, including the date of the repair, a description of the work accomplished, the work order number, model and serial number of the aerial platform, and the identification of the person(s) performing the work.
• Written records of inspections, repairs, modifications, alterations, and statements of manufacturer's approval for any modifications and alterations shall be maintained for three years after sale or other disposition of the aerial platform
VI. Glossary

A. Scaffolding

**Access:** The point at which a person can enter and exit a scaffold.

**Base Plates:** A component of a scaffold located on the foot of a pole or frame to assist in stabilizing the scaffold.

**Bracing:** A rigid connection that holds one scaffold member in a fixed position with respect to another member, or to a building or structure.

**Competent Person:** One who is capable of identifying existing and predictable hazards or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

**Galvanic Action:** A reaction which takes place that weakens the strength of metals when two incompatible metals are placed together.

**Guardrails:** A vertical barrier, consisting of top rails, mid-rails, and posts, erected to prevent employees from falling off of a scaffold platform or walkway to lower levels.

**Guying:** A rope, chain or rod attached to something as a brace or guide.

**Hoist:** A manual or power-operated mechanical device to raise or lower a suspended scaffold.

**Lanyard:** A rope used for fastening.

**Lean-to Scaffold:** A supported scaffold that is kept erect by tilting it toward and resting it against a building or structure.

**Non-Adjustable Suspension Scaffolds:** One or more stationary platforms suspended by ropes or other non-rigid means from an overhead structure.

**Outriggers:** The structural member of a supported scaffold used to increase the base width of a scaffold in order to provide support for and increased stability of the scaffold.

**Platforms:** A work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

**Power-Operated Hoists:** A hoist that is powered by other than human energy.

**Professional Engineer:** A person who holds a degree from a university or a certification from an association as an Engineer.
Qualified Person: One who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, work or project.

Rated Load: The manufacturer’s specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.

Scaffolds: Any temporary elevated platform (supported or suspended) and it’s supporting structure (including points of anchorage), used for supporting employees or material or both.

Screw Jacks: A component of the scaffold that is attached to the frame and the base plate and is used to assist in leveling the scaffold.

Sill: A horizontal piece that forms the lowest member or one of the lowest members of a framework or supporting structure.

Shore Scaffold: A supported scaffold that is placed against a building or structure and held in place with props.

Single-Point Adjustable Scaffold: A suspension scaffold consisting of a platform suspended by one rope from an overhead support and equipped with a means to permit the movement of the platform to desired work levels.

Stall Load: The load at which the prime mover of a power-operated hoist stalls or the power to the prime mover is automatically disconnected.

Stilts: A pair of poles or similar supports raised footrests, used to permit walking above the ground or working surface.

Suspension Scaffolds: One or more platforms suspended by ropes or other non-rigid means from an overhead structure.

Tying: To fasten or attach.

Two-Point Adjustable Scaffold: A suspension scaffold consisting of a platform supported by hangers suspended by two ropes from overhead supports and equipped with a means to permit the raising and lowering of the platform to desired work levels

B. Aerial Platforms

Aerial Platform - A manually propelled, or vehicle mounted device that has an adjustable position platform, supported from ground level by a structure or vehicle.

Authorized Personnel - Employees certified to operate an aerial platform and assigned to perform a specific type of duty or duties at a specific location or locations at a work site.

Base - The relevant contact points of the aerial platform that form the stability fulcrum (e.g., wheels, casters, outriggers, stabilizers, etc.)

Chassis - The integral part of the aerial platform that provides mobility and support for the elevating assembly.

Competent Person - An employee who, because of training and experience, is capable of identifying hazardous or dangerous conditions in powered platform installations and of training employees to identify such conditions.
**Configuration** - All positions in which an aerial platform or any part thereof can be placed within its intended operating limits.

**Elevating Assembly** - The mechanisms used to position the platform relative to the aerial platform chassis.

**Guardrail System** - A vertical barrier intended to prevent employees from falling to lower levels.

**Hazardous Location** - Any location that contains, or has the potential to contain, an explosive or flammable atmosphere as defined in ANSI/NFPA 505.

**Instability** - the quality or state of being unstable, likely to tip over.

**Insulated Platform** - A platform designed and tested to meet the specific electrical insulation ratings consistent with the manufacturer's identification plate.

**Interlock** - A control or mechanism that, under specific conditions, automatically allows or prevents the operation of another control or mechanism.

**Lanyard** - a flexible line or rope, wire rope, or strap which is used to secure the body belt or body harness to a deceleration device, lifeline or anchorage.

**Modification/Modified** - to make a change(s), temporary or permanent, to an aerial platform that affects the operation, stability, safety factors, rated load or safety of the aerial platform in any way.

**Operator** - A qualified person who controls the movement of the aerial platform.

**Outriggers** - Devices that increase the stability of the aerial platform and that are capable of lifting and leveling the aerial platform.

**Platform** - the portion of the aerial platform intended to be occupied by employees with their necessary tools and materials.

**Platform Height** - The vertical distance measured from the floor of the platform to the surface upon which the machine is supported.

**Qualified Person** - An employee who by reason of knowledge, experience, and training is certified and familiar with the operation to be performed and the hazards involved.

**Rated Work Load** - the designed carrying capacity of the aerial platform as specified by the manufacturer.

**Shall** - The word "shall" is to be understood as mandatory.

**Stability** - The quality, state of being stable, firmly anchored, not likely to tip over.

**Stabilizers** - Devices that increase the stability of the aerial platform but are not capable of lifting or leveling the aerial platform.