Chapter 119
SENATE BILL 1307

An Act
Amending Sections 23-492, 23-492.02, 23-492.04, 23-492.05, 23-492.07 and 23-492.08, Arizona Revised Statutes; Relating To Fall Protection For Residential Construction; Providing For Conditional Repeal.

(Text of bill begins on next page)
Be it enacted by the Legislature of the State of Arizona:

Section 1. Section 23-492, Arizona Revised Statutes, is amended to read:

23-492. Definitions

In this article, unless the context otherwise requires:
1. "Access" means a means of reaching a work space or area.
2. "Competent person" means a person who is capable of identifying existing and predictable hazards in the surroundings or working conditions that are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate the hazards.
3. "Construction work" means work activities consisting of construction, alteration, repair, painting or decorating.
4. "Controlled access zone" means a work area that does not IN WHICH WORK MAY TAKE PLACE WITHOUT THE use OF guardrails, personal fall arrest systems or safety nets AND ACCESS TO THE AREA IS CONTROLLED.
5. "Grade" or "adjacent ground elevation" means the lowest point of elevation of the finished surface of the ground, paving or sidewalk that is within the area between the building and the property line, or when the property line is more than five feet from the building, between the building and a line five feet from the building.
6. "GREATER HAZARD" MEANS THAT THE HAZARDS INVOLVED IN RIGGING AND INSTALLING THE SAFETY DEVICES REQUIRED BY THIS ARTICLE EQUAL OR EXCEED THE HAZARDS INVOLVED IN THE ACTUAL CONSTRUCTION. GREATER HAZARD INCLUDES WHERE THE WORK IS A NONREPETITIVE TASK THAT REQUIRES THIRTY MINUTES OR LESS TO COMPLETE IF ADEQUATE RISK CONTROL IS RECOGNIZED AND THE WORK IS COMPLETED UNDER IMMEDIATE, COMPETENT SUPERVISION.
7. "Guardrail" or "railing" means a barrier that consists of a top rail and a midrail that is secured to uprights and erected along the exposed sides and ends of a platform.
8. "Hole" means any opening in a floor platform, roof or other walking or working surface that is smaller than an opening.
9. "Infeasible" means the building or structure cannot support the required load for personal fall protection systems, fall clearances are inadequate for properly installed personal fall protection systems, personal fall protection systems cannot be installed according to the manufacturer's installation instructions or in compliance with the occupational safety and health construction standards, 29 Code of Federal Regulations section 1926 and adopted by the division, or the use of personal fall protection systems renders it impossible to perform necessary work operations.
10. "Leading edge" means the edge of a floor, roof or form work for a floor or other walking or working surface that changes location as additional floor, roof, decking or form work sections are placed, formed or constructed. A leading edge is considered to be an unprotected side and edge during periods when the leading edge is not actively and continuously under construction.
"Lower levels" means the areas or surfaces to which an employee can fall, including ground levels, floors, platforms, ramps, runways, excavations, pits, tanks, material, water, equipment, structures or any portions of these areas or surfaces.

"Lumber" means Douglas fir or an equivalent that has been graded under standards as high as those followed by the West Coast lumber inspection bureau or by the Western Wood Products Association as suitable for a bending stress of one thousand five hundred pounds per square inch.

"Opening" means an opening in any floor platform, roof or other walking or working surface, twelve inches or more in the least horizontal dimension, including stairway floor openings, ladderway floor openings, hatchways and chute floor openings.

"Personal fall arrest system" means a system that is used to arrest an employee in a fall from a working level and consists of an anchorage, connectors or body harness and may include a lanyard, deceleration device, lifeline or a suitable combination. The use of a body belt for fall arrest is prohibited.

"Personal fall protection system" includes personal fall arrest systems, positioning device systems, personal fall restraint systems, safety nets and guardrails.

"Personal fall restraint system" means a system that is used to prevent an employee from falling and consists of anchorages, connectors and a body belt or body harness. Personal fall restraint system may include lanyards, lifelines or rope grabs that are designed for this purpose.

"Positioning device system" means a body belt or body harness system that is rigged to allow an employee to be supported on an elevated surface such as a wall and work with both hands free while leaning.

"Qualified person" means a person who is designated by the employer and who by possession of a recognized degree, certificate or professional standing or who by extensive knowledge, training, and experience or instruction has successfully demonstrated the ability to safely perform all assigned duties and, if required, is properly licensed in accordance with federal, state or local laws, rules and regulations.

"Residential construction" means construction work where the end use of the structure being built is as a dwelling and is constructed using traditional wood frame construction materials and methods.

"Roof slope" means the incline angle of a roof surface, given as a ratio of the vertical rise to the horizontal run.

"Runway" means an elevated passageway.

"Safety belt" means a device that is specifically used for the purpose of securing, suspending or retrieving a worker in or from a hazardous work area.

"Safety monitoring system" means a safety system in which a competent person is responsible for recognizing and warning employees of fall hazards.
23. "Story" means that portion of a building, including between the upper surface of any floor and the upper surface of the floor next above, except that the topmost story shall be that portion of a building included between the upper surface of the topmost floor and the ceiling or roof above. "Story" includes the finished floor level directly above a basement, cellar or unused underfloor space that is more than six feet above grade for more than fifty per cent of the total perimeter or is more than twelve feet above the grade of such basement, cellar or unused underfloor space.

24. "Structure" means an edifice or building of any kind that is built or constructed or any piece of work that is artificially built up or composed of parts joined together in some definite manner.

25. "Toeboard" means a barrier that is secured along the sides and ends of a platform at the platform level AND THAT IS used to guard against the falling of material.

26. "Unprotected sides and edges" means any side or edge, except at entrances to points of access of a walking or working surface, including a floor, roof, ramp or runway where there is no wall or standard guardrail or protection provided.

27. "Wall opening" means a gap or void thirty inches or more high and eighteen inches or more wide that is in a wall or partition through which employees can fall to a lower level.

Sec. 2. Section 23-492.02, Arizona Revised Statutes, is amended to read:

23-492.02. Residential construction fall protection; exception

A. AN EMPLOYER MUST PROVIDE FALL PROTECTION AS PRESCRIBED BY THIS ARTICLE FOR EVERY EMPLOYEE WHO ENGAGES IN RESIDENTIAL CONSTRUCTION ACTIVITIES SIX FEET OR MORE ABOVE LOWER LEVELS. Each employee who is engaged in residential construction activities fifteen feet or more above lower levels shall be protected by personal fall protection systems, unless otherwise provided in this article. If the employer demonstrates that it is infeasible or creates a greater hazard to use these PERSONAL FALL PROTECTION systems, the employer shall develop and implement a fall protection plan that meets the requirements of section 23-492.07.

B. If the work is of short duration and nonrepetitive and is of limited exposure and the hazards involved in rigging and installing the safety devices required by this article equals or exceeds the hazards involved in the actual construction, these provisions may be temporarily suspended if adequate risk control is recognized and maintained under immediate, competent supervision.

C. B. No building structure, or part thereof, or any temporary support or scaffolding in connection therewith shall be subjected to any load beyond its design load strength, unless the employer determines, based on information received from a qualified person who is experienced in structural design, that the structure or portion of the structure is capable of safely supporting the load. For the purpose of this subsection, "design load
strength” means the load bearing capacity of a structural member computed on
the basis of the allowable stress that is assumed in the design.

C. THIS ARTICLE DOES NOT APPLY WHEN AN EMPLOYEE IS MAKING AN
INSPECTION, INVESTIGATION OR ASSESSMENT OF WORKPLACE CONDITIONS BEFORE THE
START OF ACTUAL CONSTRUCTION WORK OR AFTER ALL CONSTRUCTION WORK HAS BEEN
COMPLETED AS PROVIDED IN 29 CODE OF FEDERAL REGULATIONS SECTION
1926.500(a)(1).

Sec. 3. Section 23-492.04, Arizona Revised Statutes, is amended to
read:

23-492.04. Wood and light gage steel frame residential
construction; application; definitions
A. This section applies to work directly associated with the framing
of new residential buildings or structures using the operations, methods and
procedures associated with residential-type framing activities, including
joists or trusses resting on stud walls and work performed in the interior of
the buildings or structures.
B. Before manually raising framed walls that are fifteen feet or more
in height, temporary restraints such as cleats on the foundation or floor
system or straps on the wall bottom plate shall be installed to prevent
inadvertent horizontal sliding or uplift of the framed wall bottom plate.
Anchor bolts alone shall not be used for blocking or bracing when raising
framed walls fifteen feet or more in height.
C. EMPLOYERS MAY NOT PERMIT employees shall not TO work from or walk
on top plates, joists, rafters, trusses, beams or other structural members
until they are securely braced and supported.
D. If employees are walking or working on top plates, joists, rafters,
trusses, beams or other similar structural members over fifteen feet above
the surrounding grade or lower level below, fall protection shall be provided
by scaffolding, personal fall protection systems or by other means prescribed
by this article, except:
1. D. If employees are AN EMPLOYEE IS walking or working on securely
braced joists, rafters or roof trusses on center spacing not exceeding
twenty-four inches and more than six feet from an unprotected side or edge,—
AND LESS THAN FIFTEEN FEET ABOVE THE SURROUNDING GRADE OR LOWER LEVEL BELOW,
the employees EMPLOYEE shall be considered protected from falls between the
joists, rafters and roof trusses IF THE JOISTS, RAFTERS OR ROOF TRUSSES ARE
ON CENTER SPACING NOT EXCEEDING TWENTY-FOUR INCHES.
2. If installing floor joists, employees shall be considered protected
from falls up to and including fifteen feet above the surrounding grade or
floor level below when standing on or working from joists laid on their side
on the top plate on center spacing not exceeding twenty-four inches if
walking or working within twenty-four inches of the top plate or other
structural support.
E. If a truss support plate is used during the installation of
trusses, the truss support plate shall be constructed of a two-inch by
six-inch plank laid flat that is secured lineally to a two-inch by six-inch
plank laid on edge and supported with two-inch by four-inch wood members that are spaced no more than six feet on center and attached to diagonal bracing adequately secured to support its intended load. All material dimensions are minimum and nominal.

F. If working on floors and other walking or working surfaces that will later be enclosed by framed exterior walls, employees directly involved with the layout and construction of framed stud walls shall be protected from falling by standard guardrails pursuant to section 23-492.06 around all unprotected sides or AND edges, or by other means prescribed by this article, if the floor or walking or working surface is over fifteen feet above the surrounding grade or floor level below.

G. The following applies APPLY when installing starter board, roof sheathing and fascia board:

1. Employees shall be protected from falling by scaffolding, guardrails, personal fall protection systems or other means prescribed by this article, as follows:
   (a) for structures greater than one story in height where the fall height exceeds fifteen feet above the surrounding grade or floor level below.
   (b) If EMPLOYERS SHALL REQUIRE EMPLOYEES working on a roof that is sloped greater than 7:12, except for a roof that is sloped up to 12:12, slide guards may be used as fall protection up to and including fifteen feet as measured from the eaves to the surrounding grade or lower level below TO COMPLY WITH SECTION 23-492.05.

2. Employees who work inside the gable end truss or rafter shall be considered protected from falls where the gable end truss has been installed and braced to withstand a lateral force of two hundred pounds and the employee installs fascia or starter board working from within the gable end truss or rafter.

3. If work must be performed outside the gable end truss or rafter, the employee shall be protected from falling by scaffolding or a personal fall protection system or other means prescribed by this article, except that if the work is of short duration and limited exposure and the hazards involved in rigging and installing the safety devices require equal or exceed the hazards involved in the actual construction, these provisions may be temporarily suspended provided the work is performed by a qualified person.

H. Wall openings shall be guarded pursuant to section 23-492.03. The guardrail may be removed immediately before installing the window components if removal of the guardrail is necessary to install the window.

I. If scaffolding is used, it shall be constructed pursuant to 29 Code of Federal Regulations section 1926, subpart L. If scaffolds are installed parallel and adjacent to framed structure walls, the interior railing may be omitted for installation of floor joists, rafters or trusses if the scaffold platform is fifteen feet or less from the interior floor level below and the top plate is higher than the adjacent work platform. If scaffolding is used as an edge protection platform:
1. The platform shall not be more than two feet vertically below the top plate and the platform shall be fully planked.
2. The distance between the inboard edge of the platform and the building or structure wall shall not be more than sixteen inches.
3. A toeboard that is two-inch by six-inch or larger shall be secured on edge parallel to the outer rail.
4. Scaffolds shall be secured in tension and compression to the structure at or near the top of the scaffold at each end and at every other frame not to exceed twenty-foot intervals.
5. Guardrailings shall extend not less than forty-two inches vertically above the eaves if the outboard edge of the platform extends less than twelve inches horizontally beyond the eaves.
6. EMPLOYERS SHALL TRAIN ALL employees who are exposed to fall hazards shall be trained pursuant to section 23-492.09 to recognize fall hazards associated with the erection and construction activities and trained to minimize these hazards. Such EMPLOYERS SHALL DOCUMENT THE training shall be documented pursuant to section 23-492.09.
7. If the employer demonstrates that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan that meets the requirements of section 23-492.07.
8. For the purposes of this section:
   1. "Bottom plate" or "sole plate" means the bottom horizontal member of a frame wall.
   2. "Eaves" means the lowest edge of a sloped roof.
   3. "Fascia board" means the exterior trim board at the perimeter of the roof.
   4. "Joist" means one of a series of parallel beams used to create a structural support system for a floor deck or flat roof onto which sheathing is fastened.
   5. "Nominal size" means the commercial size designation of a standard width and depth of standardized sawn lumber and glue laminated lumber grades, larger than the standard actual net size of the finished, dressed lumber. "Nominal size" includes an approximate rough-cut dimension assigned to a piece of material as a convenience in referencing to the piece.
   6. "Rafter" means one of a series of structural members of a roof that is designed to support roof loads. "Rafter" includes:
      (a) A framing member that runs up and down the slope of a pitched roof.
      (b) The beams that slope from the ridge of a roof to the eaves and make up the main body of the roof's framework.
      (c) Roof joists for the rafters of a flat roof.
   7. "Sheathing" means the structural panel covering that is fastened to studs, floor joists, rafters or trusses.
   8. "Slide guard" means a two-inch nominal cleat, on centers not to exceed four feet, that is securely fastened to the roof sheathing to provide footing on a sloped roof.
9. "Starter board" means the board-type sheathing material that is installed at eaves and gable ends in the plane of the sheathing and visible from the underside.

10. "Stud" or "wall stud" means a vertical framing member in walls and partitions that are attached to the horizontal sole plate below and the top plate above.

11. "Top plate" means the top horizontal member of a frame wall supporting ceiling joists, rafters or other structural members.

12. "Truss" means the prefabricated structural roof unit that consists of triangular bracing or truss web between the ceiling joist or bottom chord and the roof rafter or top chord commonly installed parallel with other trusses to create a structural support system for a roof after which sheathing is fastened. The bottom chord often serves as a ceiling joist. Each member is usually subjected to longitudinal stress only, either tension or compression.

13. "Truss support plate" means a temporary support structure that is erected near mid-span of an area with a large open span, such as a garage, to support trusses during installation.

Sec. 4. Section 23-492.05, Arizona Revised Statutes, is amended to read:

23-492.05. Roofing operations and equipment; applicability

A. Employees shall be protected from falling when on a roof surface where the eave height exceeds fifteen feet above the grade or level below and the roof slope is not steeper than 4:12 by use of one of any combination of personal fall protection systems, catch platforms, scaffold platforms, eave barriers, roof jack systems, safety monitoring systems or parapets at least twenty-four inches high OR A SAFETY MONITORING SYSTEM AS ALLOWED BY 29 CODE OF FEDERAL REGULATIONS SECTION 1926.501(b)(10).

B. Employees shall be protected from falling when on a roof surface where the eave height exceeds fifteen feet above the grade or level below and the roof slope is steeper than 4:12 but not steeper than 7:12 by use of one or any combination of personal fall protection systems, catch platforms, scaffold platforms, eave barriers, roof jack systems or parapets at least twenty-four inches high.

C. Employees shall be protected from falling when on a roof surface steeper than 7:12 by personal fall protection systems, catch platforms or scaffold platforms, regardless of the height of the roof.

D. If a personal fall protection system is used to comply with this section, the system shall be installed and used pursuant to section 23-492.06.

E. If catch platforms are used to comply with this section, they shall be installed in close proximity below the eaves below roof work areas, extend at least two feet horizontally beyond the projection of the eaves and be provided with standard railings and toeboards pursuant to section 23-492.06. Catch platforms shall be fully planked.
F. If built-up scaffold platforms are used to comply with this section, they shall be installed and maintained pursuant to 29 Code of Federal Regulations section 1926, subpart L. Fully planked platforms shall be provided near the eave level.

G. If eave barriers are used to comply with this section, the barrier, unless of solid construction, shall comply with section 23-492.06. The barrier system shall be securely anchored at eave level or supported by ropes securely tied to substantial anchorages on the roof. If the barrier system is to be moved from one work area to another, employees performing the moving operations shall be protected by the use of safety belts and lines.

H. If a roof jack system is used to comply with this section, the roof jacks shall be constructed to fit the slope of the roof and be designed, fabricated and installed in such a manner that they will sustain all expected loads. The supported plank shall be positioned at some angle from perpendicular to the roof to horizontal. Intervals or spans between roof jacks shall not exceed ten feet. If roof supports are used they shall consist of first-grade manila rope of at least three-fourths inch diameter or other material of equivalent strength. Wooden supporting members that span between roof jacks shall be selected lumber or equivalent and be of at least two-inch by six-inch material. Where supporting members other than wood are used they shall be of at least the equivalent strength. Wooden supporting members that span between roof jacks shall be selected lumber or equivalent and be of at least two-inch by six-inch material. Where supporting members other than wood are used they shall be of at least equivalent strength.

I. If a safety monitoring system is used to comply with this section, the system must be installed and used pursuant to section 23-492.08 and used in combination with a warning line system. On roofs fifty feet or less in width, the use of a safety monitoring system without a warning line system is permitted.

J. For the purposes of this section, the height measurement shall be determined by measuring the vertical distance from the lowest edge of the roof or eaves to the ground or level below. The height of parapets shall not be included in the roof height measurements.

K. In addition to the training required under section 23-492.09, employers shall train each affected employee to ensure specific awareness of the fall hazards associated with roofing work, including:

1. Work on or near gable ends.
2. Slipping hazards.
3. Roof holes and openings.
4. Skylights.
5. Work on ladders and scaffolds.
6. Access to roof.
7. Placement and location of materials on roof.
8. Care and use of fall protection systems.
L. Documentation of employee training shall be maintained as required by 29 Code of Federal Regulations section 1926.503.

M. If the employer demonstrates that it is infeasible or creates a greater hazard to use these systems, the employer shall develop and implement a fall protection plan that meets the requirements of section 23-492.07.

M. This section applies to roofing work on new residential construction sites, reroofing operations, roofing replacements, additions on existing dwelling units and installation, replacement and repair of solar equipment.

Sec. 5. Section 23-492.07, Arizona Revised Statutes, is amended to read:

23-492.07. Fall protection plan; applicability
A. Every employer engaged WHOSE EMPLOYEES ENGAGE in residential construction activities SIX FEET OR MORE ABOVE LOWER LEVELS shall prepare and implement a written fall protection plan which reduces or eliminates fall hazards for employees engaged in residential construction activities six feet or more above lower levels as follows:

1. The employer may develop a single fall protection plan covering all construction operations. The fall protection plan shall be prepared by a qualified person and the plan must be maintained up to date. The plan shall document the identity of the qualified person.

2. Any changes to the fall protection plan shall be approved by the qualified person. The identity of the qualified person shall be documented.

3. A copy of the fall protection plan with all approved changes shall be maintained at the job site.

4. The implementation of the fall protection plan shall be under the supervision of a competent person. The plan shall document the identity of the competent person.

5. The fall protection plan shall identify all fall hazards six feet or more above lower levels. IF A WORKSITE HAS A FALL HAZARD THAT IS NOT COVERED IN THE WRITTEN FALL PROTECTION PLAN, THE QUALIFIED PERSON SHALL DEVELOP A SUPPLEMENT TO THE WRITTEN FALL PROTECTION PLAN TO COVER THE FALL HAZARD.

6. The fall protection plan shall include a written discussion of all measures that will be taken to reduce or eliminate the fall hazard for workers exposed to fall hazards six feet or more above lower levels.

7. The fall protection plan shall identify each location that will be classified as a controlled access zone and the employer shall comply with section 23-492.08.

8. Where no alternative measures have been implemented, the employer shall implement a safety monitoring system that complies with section 23-492.08.

9. The fall protection plan must include a statement providing the name or other method of identification for each employee who is designated to work in a controlled access zone. No other employees may enter controlled access zones.
10. In the event an employee falls, or some other related serious incident occurs such as a near miss or an arrested fall, the employer shall investigate the circumstances of the fall or other incident to determine if the fall protection plan needs to be amended and shall implement those changes to prevent similar types of falls or incidents.

B. In addition to the requirements in subsection A of this section, when it can be shown that the use of personal fall protection systems to protect employees working fifteen feet or more above lower levels is infeasible or creates a greater hazard, the employer shall include in the written fall protection plan the following:

1. The fall protection plan shall be prepared by a qualified person and developed specifically for the site where the construction work is being performed. The employer may develop a single site fall protection plan for sites where the construction operations are essentially identical.

2. The fall protection plan shall document the reasons why the use of personal fall protection systems is infeasible or creates a greater hazard.

3. The fall protection plan shall identify each location where personal fall protection systems cannot be used. These locations shall then be classified as controlled access zones and the employer must comply with the provisions of section 23-492.08.

Sec. 6. Section 23-492.08, Arizona Revised Statutes, is amended to read:

23-492.08. Controlled access zones and safety monitoring systems
A. If 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 other means that restrict access. Signs shall be posted to warn unauthorized employees to stay out of the controlled access zone.

B. The employer shall designate a competent person as a safety monitor to monitor the safety of other employees. The employer shall ensure that the safety monitor:

1. Is competent to recognize fall hazards.

2. Warns employees when it appears that the employees are unaware of a fall hazard or are acting in an unsafe manner.

3. Is within visual sighting distance of employees and communicates with the employees who are being monitored.

4. Does not have other responsibilities that could take the monitor’s attention away from the monitoring function.

C. Employers shall prohibit an employee, other than an employee covered by a fall protection plan, from entering a controlled access zone.

D. Employers shall require each employee who works in a controlled access zone to comply with fall hazard warnings from safety monitors.

Sec. 7. Conditional repeal; notice
A. Title 23, chapter 2, article 13, Arizona Revised Statutes, is repealed if the federal occupational safety and health administration
publishes in the federal register pursuant to 29 Code of Federal Regulations section 1902.23 a final decision rendered under 29 Code of Federal Regulations section 1902.22 and pursuant to 29 Code of Federal Regulations section 1953 to reject the changes to this state's occupational safety and health plan prescribed in section 23-492.01, Arizona Revised Statutes, and that results in the exclusion of the changes from this state's federally approved occupational safety and health plan.

B. The director of the industrial commission of Arizona shall notify the director of the legislative council if the federal occupational safety and health administration publishes the decision to reject described in subsection A of this section.

APPROVED BY THE GOVERNOR APRIL 22, 2014.