

### Fall protection work plan

Fall protection is required at four feet; however, a written plan is required at or above 10 feet

Department	Site location
Job task	
Job location and description	

Plan prepared by	Date
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- This fall protection work plan must be posted at the worksite for the duration of work activities.
- Workers must review and sign this fall protection work plan prior to starting work. Workers must understand this plan and be trained in fall protection and the systems and equipment that will be used.

#### 1. Identify potential fall hazards – check all that apply

<input type="checkbox"/>	Mobile elevating work platforms	<input type="checkbox"/>	Stairways
<input type="checkbox"/>	Excavations/trenches	<input type="checkbox"/>	Roof steep slope (greater than 4:12)
<input type="checkbox"/>	Floor openings	<input type="checkbox"/>	Roof low slope (4:12 or less)
<input type="checkbox"/>	Wall openings	<input type="checkbox"/>	Swing fall
<input type="checkbox"/>	Skylight openings	<input type="checkbox"/>	Hazardous process/equipment
<input type="checkbox"/>	Roof openings	<input type="checkbox"/>	Debris/objects falling to lower level
<input type="checkbox"/>	Elevator shaft	<input type="checkbox"/>	Sharp edges
<input type="checkbox"/>	Ladders (fixed or portable)	<input type="checkbox"/>	Reinforcing steel installation
<input type="checkbox"/>	Scaffold	<input type="checkbox"/>	Other:

#### 2. Describe the fall hazards details

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#### 3. Identify fall protection systems to be used

<input type="checkbox"/>	Guardrail system	<input type="checkbox"/>	Aerial lift
<input type="checkbox"/>	Covers (holes and openings)	<input type="checkbox"/>	Horizontal lifeline
<input type="checkbox"/>	Appropriate anchors for systems used	<input type="checkbox"/>	Vertical lifeline and rope grab
<input type="checkbox"/>	Personal fall arrest system	<input type="checkbox"/>	Warning line

<input type="checkbox"/>	Personal fall restraint system	<input type="checkbox"/>	Safety monitor
<input type="checkbox"/>	Positioning device system	<input type="checkbox"/>	Safety watch
<input type="checkbox"/>	Scaffold with guardrail	<input type="checkbox"/>	Other:
<input type="checkbox"/>	Scissor lift	<input type="checkbox"/>	Other:

**4. Describe procedures for assembly, maintenance, inspection, disassembly of fall protection system to be used**

**5. Describe procedures for handling, storage, securing tools and materials**

**6. Identify methods of overhead protection for workers who may be in, or pass through the area below worksite**

<input type="checkbox"/>	Barricading	<input type="checkbox"/>	Toeboards/screens on scaffolds
<input type="checkbox"/>	Hard hats required	<input type="checkbox"/>	Toeboards/covers on floor openings
<input type="checkbox"/>	Catch net	<input type="checkbox"/>	Screens on guardrails
<input type="checkbox"/>	Warning signs	<input type="checkbox"/>	Secure large tools
<input type="checkbox"/>	Tool belts	<input type="checkbox"/>	Other:
<input type="checkbox"/>	Tool lanyards	<input type="checkbox"/>	Other:

**7. Identify method for prompt, safe removal of injured workers – call 911 if fall occurs**

<input type="checkbox"/>	Written agreement with:	<input type="checkbox"/>	Self-rescue
<input type="checkbox"/>	Site first aid	<input type="checkbox"/>	Other employees
<input type="checkbox"/>	Elevator/stairs	<input type="checkbox"/>	Other:

**8. Identify method used to determine adequacy of anchorage points**

<input type="checkbox"/>	Evaluation by professional engineer	<input type="checkbox"/>	Existing engineering/design documents
<input type="checkbox"/>	Manufacturer's data	<input type="checkbox"/>	Other:

**9. Describe and identify locations of anchorage points**

**10. Select system components**

<input type="checkbox"/>	Full body harness	<input type="checkbox"/>	Choker
<input type="checkbox"/>	Vertical lifeline	<input type="checkbox"/>	Carabiner
<input type="checkbox"/>	Horizontal lifeline	<input type="checkbox"/>	Rope grab
<input type="checkbox"/>	Lanyard	<input type="checkbox"/>	Personal shock absorber
<input type="checkbox"/>	Boatswains chair	<input type="checkbox"/>	Beamer
<input type="checkbox"/>	Connecting devices (identify)	<input type="checkbox"/>	Anchorage points (identify)
<input type="checkbox"/>	Other:	<input type="checkbox"/>	Other:

**11. Distance from anchor to ground, lower level or obstruction (see page 4 chart)**

**12. Calculated minimum fall clearance – see page 4 chart**

**13. Inspection Checklist**

<input type="checkbox"/>	Identification tags
<input type="checkbox"/>	Horizontal lifeline tension is correct
<input type="checkbox"/>	Integrity of stitching in shock absorber
<input type="checkbox"/>	Integrity of stitching in harness/lanyard
<input type="checkbox"/>	Manufacturers assembly/disassembly instructions
<input type="checkbox"/>	Locking capability of retractable lanyards assured
<input type="checkbox"/>	Locking capability of carabiners assured
<input type="checkbox"/>	Locking capability of snap hooks assured
<input type="checkbox"/>	Knots and other connection methods do not weaken lifeline
<input type="checkbox"/>	Lifelines installed and protected from cuts or abrasions
<input type="checkbox"/>	Rope – wear, fraying, damage, mildew
<input type="checkbox"/>	Lanyards – wear, fraying, damage, mildew
<input type="checkbox"/>	D-rings have adequate strength, are not cracked or deformed
<input type="checkbox"/>	Guardrails are sound and of adequate strength
<input type="checkbox"/>	Devices that are used to connect to horizontal lifelines lock in both directions
<input type="checkbox"/>	Anchorage points provide adequate strength and are capable of meeting requirements
<input type="checkbox"/>	Hole covers are secured, marked and capable of withstanding anticipated weight loads
<input type="checkbox"/>	Warning line meets strength and other requirements
<input type="checkbox"/>	Safety Monitor is Competent Person, can see workers, is close enough to communicate, has no other duties
<input type="checkbox"/>	Safety Watch is Competent Person, can see worker, is close enough to communicate, has no other duties
<input type="checkbox"/>	Other
<input type="checkbox"/>	Other

**14. Employee(s) trained to work under this plan**

<b>Name, print</b>	<b>Signature</b>	<b>Date</b>
		Click to enter date
		Click to enter date
		Click to enter date

		Click to enter date
		Click to enter date
		Click to enter date
		Click to enter date
		Click to enter date
<b>Name/title of competent person who provided training under this plan</b>		
<b>15. Work plan approval(s)</b>		
<b>Name of lead worker or supervisor</b>	<b>Signature</b>	<b>Date</b>
		Click to enter date
<b>Name of competent person. If engineered system: name of qualified person</b>		
		Click to enter date
<b>If administrative controls: name of department manager</b>		
		Click to enter date

Fall clearance is the minimum vertical distance needed between the anchor point and a lower level, this can be the ground or lower obstruction, with a safety factor to prevent the worker from hitting the lower level in a fall.

**What is the distance from the anchor point to the ground or lower level where a worker would fall?**

If a worker falls, when wearing a fall protection system, what is the **minimum fall clearance** from the anchor point to the worker's feet including a 3 ft. safety factor?  
**Calculate as shown below.**

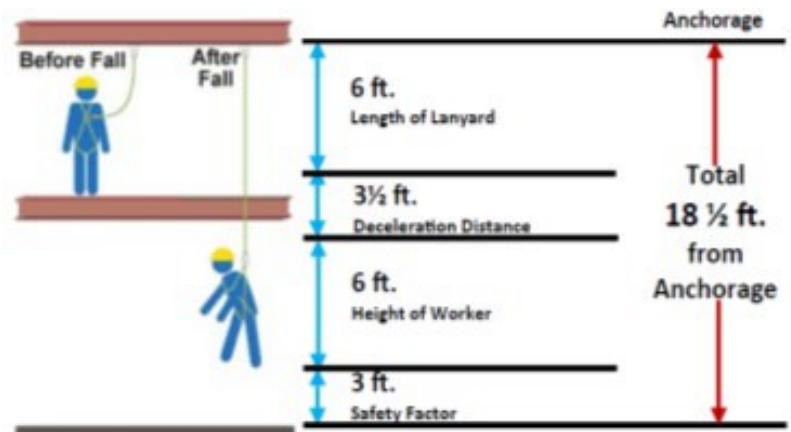
The calculated minimum fall clearance of a specific fall protection system may **never** be equal or greater than the distance between the anchor point and the lower level.

Description	Distance in ft.
Lanyard length or free fall distance for self-retracting lifeline	
Maximum allowable deceleration distance	<b>3½ ft.</b>
Workers height	
Other component if applies	
Safety factor	<b>3</b>
<b>Minimum fall clearance.</b> Sum of above.	

## Calculating fall clearance using a shock absorbing lanyard

### Example:

1. Add the length of the shock absorbing lanyard (6 ft.) to the maximum elongation of the shock absorber during deceleration (3½ ft.) to the average height of a worker (6ft.).
2. Then, add a safety factor of 3 ft. to allow for the possibility of an improperly fit harness, a taller than average worker and/or a miscalculation of distance.
3. The total, 18½ ft. is the suggested safe fall clearance for this example.

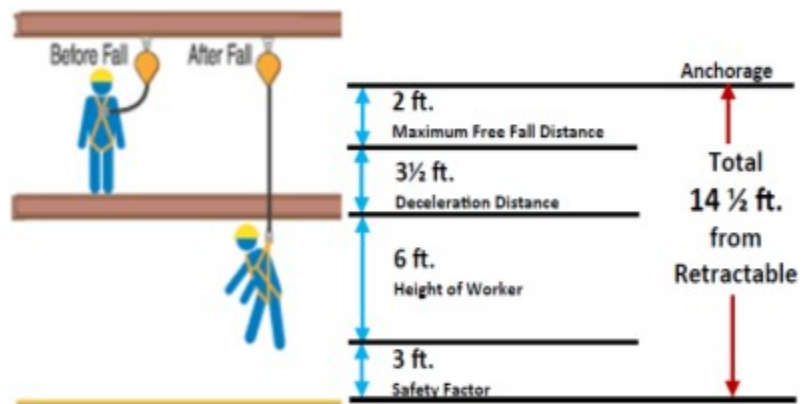


**Note:** Should the shock absorbing lanyard be used in conjunction with a cross-arm anchorage connector or other, the additional length of the anchorage connector must be taken into consideration.

## Calculating fall clearance using a self-retracting lifeline

### Example:

1. Add the maximum free fall distance (2ft.) with a retractable lifeline to the maximum deceleration distance (3½ ft.) to the average height of a worker (6ft).
2. Add a safety factor of 3ft. to allow for the possibility of an improperly fit harness, a taller than average worker and/ or a miscalculation distance.
3. The total 14½ ft. is the suggested safe fall clearance distance for this example.



**Note:** When using a retractable lifeline, the distance is calculated from the point where the retractable attaches to the back D-ring of the worker's harness.

Questions? Contact ASU Environmental Health and Safety at 480-965-1823 or email [asuehs@asu.edu](mailto:asuehs@asu.edu).

Revision date 12/15/2021