

OSHA Fall Protection Complete Safety Pack

FORBES SAFETY SOLUTIONS

Complete bundle — 9 templates included

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HARNESS & LANYARD INSPECTION LOG

Company Name _____

Inspector Nam _____

[illegible]

[illegible]

Webbing Condition

Stitching Condition

D-Rings / Hardware

Buckles / Grommets

Labels Legible

Lanyard Condition

SRL (Self-Retracting Lifeline)

Shock Absorber Pack

IMPORTANT REMINDERS:



ARNESS & LANYARD INSPECTION GUIDE

Inspect for Each Component — Per OSHA & Manufacturer Guidelines

• Look for cuts, frays, abrasions, or pulled stitches
• Check for chemical damage (discoloration, stiffness, softening)
• Inspect for UV degradation (fading, chalky texture)
• Check for heat/burn damage (hard, shiny spots)
• Verify no knotting or unauthorized modifications

• All stitching intact with no broken, pulled, or cut threads
• Check load-bearing stitch patterns at connection points
• Look for stitching that has pulled through webbing
• Verify contrasting-color thread visible (indicates load indicators)

• Check for cracks, distortion, or sharp edges
• Verify D-ring pivots freely (not seized or corroded)
• Inspect for excessive wear or pitting
• Back D-ring, front D-ring, and side D-rings if applicable
• Check that all rivets and grommets are secure

• Tongue buckles: check for distortion, loose tongue, proper engagement
• Quick-connect buckles: verify positive locking and release function
• Check for cracks, corrosion, or excessive wear
• Ensure friction buckles hold webbing securely
• Grommets not pulled loose or distorted

• Manufacturer name and address visible
• Date of manufacture readable
• Model/part number legible

- ANSI/OSHA compliance markings present
- Weight capacity rating visible
- If labels missing/unreadable — REMOVE FROM SERVICE

- Inspect full length for cuts, abrasion, kinks, or knots
- Check snap hooks for gate operation, lock function, and corrosion
- Verify snap hook gate closes fully and locks automatically
- Check for any evidence of deployment (shock absorber activation)
- Web lanyards: check stitching and webbing per above
- Wire rope lanyards: check for broken wires, kinks, corrosion

- Check housing for cracks, dents, or damage
- Verify line retracts smoothly under slight tension
- Test locking mechanism by sharp pull
- Inspect cable/webbing for damage at exit point
- Check hook/carabiner for proper gate function
- Verify fall indicator has not been deployed

- Check outer cover/pack for damage, tears, or openings
- Verify deployment indicators have NOT been activated
- Any sign of deployment = IMMEDIATE removal from service
- Check that pack is properly attached to lanyard
- Look for elongation or stretching of pack

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Inspect ALL fall protection equipment BEFORE EACH USE per 29 CFR 1926.502(d).

Equipment involved in a fall arrest event MUST be immediately removed from service.

Equipment showing any defect MUST be tagged 'OUT OF SERVICE' and removed immediately.

Only the manufacturer or a qualified person may repair fall protection equipment.

Never use equipment beyond manufacturer's recommended service life.

Maintain inspection records for the lifetime of each piece of equipment.

Competent person must perform inspections — training documentation required.

SCAFFOLDING SAFETY INSPECTION CHECKLIST

Forbes Safety Solutions — Per 29 CFR 1926.451-454

Project Name:		Date:	
Location:		Time:	
Inspector Name:		Weather:	
Scaffold ID / Tag #:		Scaffold Type:	

FOUNDATION & BASE

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
1	Mudsills or adequate firm foundation in place		
2	Base plates installed on all legs		
3	Scaffold is plumb (vertical)		
4	Scaffold is level (horizontal)		
5	Screw jacks adjusted properly (not extended past limit)		
6	Scaffold positioned on stable, compacted ground		
7	No undermining or erosion at base		

STRUCTURE & FRAMING

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
8	Cross bracing installed on both sides at each level		
9	All brace connections secure and pinned		
10	Horizontal bracing / bearers properly installed		
11	Frames properly stacked and aligned		
12	Coupling pins in place at all frame connections		
13	Scaffold tied to structure at required intervals		
14	Tie-in connections secure and adequate		
15	No visible damage to frames, braces, or components		
16	All components are from the same manufacturer or certified compatible		

PLANKING & DECKING

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
17	Planks are scaffold-grade lumber or manufactured scaffold planks		
18	Planks extend 6" beyond supports (max 12")		
19	Planks overlap minimum 12" over supports		
20	No gaps greater than 1" between planks		

21	Planks secured to prevent displacement		
22	Planks not cracked, split, or visibly damaged		
23	Platform fully planked between guardrails		
24	No makeshift planking materials used		

ACCESS

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
25	Safe access provided (ladder, stairway, ramp, or integral access)		
26	Access ladder extends 3 feet above platform level		
27	Ladder rungs evenly spaced and in good condition		
28	Stair rails installed on open sides of stairways		
29	Access gates or chains at ladder openings		
30	Cross braces not used as access		

FALL PROTECTION

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
31	Top rail installed at 38" to 45" above platform		
32	Mid-rail installed at approximately mid-height		
33	Toeboards installed (min 3.5" high) on all open sides		
34	Guardrail system on all open sides and ends		
35	Personal fall arrest system available if required		
36	All fall protection hardware in good condition		
37	Screen/mesh installed where required (pedestrian traffic below)		

ELECTRICAL HAZARDS

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
38	Scaffold positioned minimum safe distance from power lines		
39	Power lines de-energized or insulated where required		
40	No electrical cords running through scaffold structure unsafely		
41	Ground-fault protection for tools used on scaffold		
42	Lightning risk assessed (suspend work if storms approach)		

LOAD CAPACITY & MATERIALS

#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
43	Load capacity posted and visible on scaffold		
44	Scaffold not overloaded beyond rated capacity		
45	Materials neatly organized and secured on platform		
46	No accumulation of debris or unnecessary materials		
47	Counterweights (if suspended scaffold) properly installed and secured		
48	Outriggers extended and secured (if mobile scaffold)		

MOBILE SCAFFOLD — ADDITIONAL ITEMS			
#	Inspection Item	Pass/Fail/N/A	Comments / Corrective Action
49	Casters locked when scaffold is in use		
50	Casters on firm, level surface		
51	No workers on platform during movement		
52	Height-to-base ratio does not exceed 3:1 (outdoors) or 4:1 (indoors)		
53	All tools and materials secured before moving		
54	Push/pull force applied at or near base		

INSPECTION RESULTS SUMMARY	
Total Items Inspected	8
Items Passed	0
Items Failed	0
Items N/A	0
Pass Rate	0.0%

OVERALL SCAFFOLD DISPOSITION	
Scaffold Status:	
Corrective Actions Required:	

COMPETENT PERSON SIGN-OFF (29 CFR 1926.451(f)(3))	
Competent Person Name (Print):	_____
Competent Person Signature:	_____
Date:	_____ Time: _____
Re-Inspection Required?	☐ Yes ☐ No If Yes, Date: _____
Supervisor Notification:	☐ Yes ☐ N/A Supervisor Name: _____

Note: This inspection must be performed by a competent person before each work shift and after any occurrence that could affect scaffold structural integrity (e.g., severe weather, impact). Per 29 CFR 1926.451(f)(3), a competent person must inspect scaffolds and scaffold components for visible defects before each work shift.

JOB HAZARD ANALYSIS

Roofing Operations — Commercial & Residential

Applicable Standards: 29 CFR 1926 Subpart M (1926.500–1926.503) — Fall Protection; 29 CFR 1926.501(b)(10) — Roofing; OSHA 3150 — Fall Protection in Construction

Project Name: _____	Date: _____
Location: _____	Supervisor: _____
Crew Members: _____	

Step #	Job Steps	Potential Hazards	Hazard Controls	Responsible Person
1	Establish roof access via ladder, scaffold, or aerial lift	Falls from height during access/egress; ladder tip-over or displacement; overreaching	Extension ladder extends 3 ft above roof edge. Secure at top and base. 4:1 ratio setup. Use ladder stabilizer on soft ground. Three-point contact rule enforced. Workers wear 100% tie-off harness when transitioning to roof.	
2	Install perimeter fall protection (guardrails, warning line system, or personal fall arrest)	Unprotected roof edge — falls to lower level (leading cause of roofing fatalities)	Install guardrails meeting 1926.502(b) — 42" top rail, 21" mid rail, capable of 200 lb force. For low-slope roofs: warning line at 6 ft from edge + safety monitor OR personal fall arrest system. Anchor points rated 5,000 lbs per worker.	
3	Hoist materials to roof level using crane, conveyor, or manual methods	Struck-by from falling materials; overloaded hoist; musculoskeletal injuries from manual lifting	Establish exclusion zone below hoisting area. Tag loads — no riding loads. Inspect rigging hardware pre-use. Limit manual carries to <50 lbs per person. Two-person lift for bundles. Hard hats mandatory in hoist zone.	
4	Remove existing roofing materials (tear-off operations)	Falls through weakened decking or skylights; exposure to asbestos/lead in older buildings; nail puncture wounds	Survey for fragile decking and skylights — cover or guard per 1926.502(i). Pre-demolition hazmat survey for buildings pre-1980. Cut-resistant gloves and puncture-resistant boot insoles. Debris chute or controlled drop zone for waste.	
5	Inspect and repair roof deck substrate	Structural collapse of weakened deck; falls through openings; splinter/cut injuries	Competent person evaluates structural integrity before loading. Cover all deck openings — secure covers labeled "HOLE" per 1926.502(i). Replace rotted decking before proceeding. Maximum material staging load per structural engineer limits.	
6	Install underlayment, insulation, and vapor barrier	Heat illness (especially on dark roofs in summer); slips on smooth membrane; adhesive/solvent fume inhalation	Implement heat illness prevention plan — water, rest, shade per OSHA guidance. Cool-down breaks every 20 min when >90°F. Non-slip footwear required. Half-face respirator with OV cartridge for adhesive application. Ventilation for enclosed areas.	
7	Install primary roofing system (shingles, membrane, or metal panels)	Repetitive motion injuries; nail gun injuries; burns from hot-applied materials (BUR/modified bitumen); electrical contact with rooftop equipment	Sequential trigger on nail guns only (no bump firing). Hot kettle operators trained and certified — fire extinguisher within 25 ft. Maintain 10-ft clearance from electrical equipment. Rotate task assignments to reduce repetitive strain.	
8	Perform edge and flashing detail work (drip edge, valley, penetrations)	Falls from roof edge during low-position work; lacerations from sheet metal; dropped tools striking workers below	100% personal fall arrest at roof edge — 6-ft max free fall. Use retractable SRL when working near edge. Cut-resistant gloves for metal flashing. Tool lanyards on all hand tools. Drop zone barricaded below.	

Step #	Job Steps	Potential Hazards	Hazard Controls	Responsible Person
9	Conduct final inspection, cleanup, and debris removal	Puncture wounds from exposed fasteners; trip hazards from debris; struck-by during waste removal	Magnetic nail sweeper on deck and ground level. Bundle debris for controlled lowering — no throwing materials. Maintain fall protection until last worker descends. Final walkthrough by supervisor. Document punch list items.	

 **This JHA must be reviewed and signed by all crew members before work begins.** Conditions on the jobsite may change — reassess hazards throughout the shift and update this JHA as necessary.

REVIEW & APPROVAL

Reviewed By (Print Name)

Signature

Date

FORBES SAFETY SOLUTIONS

JOB HAZARD ANALYSIS

JHA INFORMATION			
JHA Title:	Scaffolding Erection & Dismantling	JHA Number:	FSS-JHA-029
Project Name:		Date:	
Location:		Revision:	0
Regulatory References:	29 CFR 1926.451 (General Requirements — Scaffolds); 29 CFR 1926.452 (Specific Types); 29 CFR 1926.453 (Aerial Lifts); 29 CFR 1926.454 (Training)		
Prepared By:		Approved By:	
Competent Person:		Supervisor:	

JOB HAZARD ANALYSIS — TASK BREAKDOWN

Task Step	Hazard	Risk Level (H/M/L)	Control Measures
1. Site Assessment & Base Preparation	• Unstable ground conditions • Underground utilities • Overhead power line proximity • Uneven or sloped terrain • Pedestrian/vehicle traffic	H	• Competent person conducts site survey before erection begins • Verify soil bearing capacity at scaffold location — compact or improve as needed • Call 811 / utility locate to identify underground utilities • Survey for overhead power lines — maintain minimum 10 ft clearance (20 ft for >50kV) • Level ground surface; use compacted gravel fill if needed • Barricade scaffold zone to restrict unauthorized access • Establish traffic control plan if near vehicle routes
2. Mud Sill / Base Plate Placement	• Point loading causing settlement • Base plate sliding/shifting • Uneven load distribution • Improper sill sizing	M	• Place mud sills (min 2x10 lumber or engineered sills) under all base plates • Mud sills must extend minimum 6 inches beyond base plate on each side • Ensure base plates are centered on mud sills • Verify level with spirit level — shim as needed (no scrap wood for shimming) • Never use concrete blocks, bricks, or unstable materials as base support • Lock screw jacks after leveling — do not exceed maximum extension
3. Frame Erection & Bracing	• Falls during erection (no guardrails yet) • Scaffold collapse from improper bracing • Struck by falling components • Manual handling injuries	H	• Erectors must use personal fall arrest systems (harness + lanyard) until guardrails installed • Install cross-bracing on every frame bay — both sides • Plumb and level each lift before proceeding to next tier • Use manufacturer's coupling/locking pins — no substitutions • Two-person minimum for frame erection — use tag lines for heavy components • Secure components against wind during erection (tie-off partially erected sections) • Install tie-ins to structure per manufacturer specs (every 26 ft vertical, 30 ft horizontal)
4. Platform Installation & Guardrails	• Falls from incomplete platforms • Planks sliding or tipping • Gaps between planks > 1 inch • Missing guardrail components	H	• Install scaffold planks full width — maximum 1-inch gap between planks • Planks must extend minimum 6 inches beyond support, maximum 12 inches • Secure planks to prevent displacement (cleats, hooks, or wire ties) • Install guardrails: top rail at 38-45 inches, mid rail, and toe board (4 inches min) • Guardrail must withstand 200 lb force at any point in any direction • Install access ladder or stair tower — no climbing on cross-braces • Inspect all planks for defects — reject cracked, warped, or damaged planks
5. Scaffold Inspection & Tagging	• Use of uninspected scaffold • Overloading beyond rated capacity • Defects missed during inspection • Unauthorized modifications	M	• Competent person inspects scaffold before each work shift • Apply scaffold tag system: GREEN (safe), YELLOW (restrictions), RED (do not use) • Document inspection findings on scaffold inspection form • Post load capacity signage on scaffold (must not exceed 4x max intended load) • Re-inspect after any alteration, weather event, or extended non-use

			- Do not modify scaffold without competent person approval - Train all scaffold users on tag system and load limits per 1926.454
6. Dismantling (Reverse Sequence)	- Falls during dismantling - Scaffold instability as components removed - Struck by falling components - Premature removal of ties/bracing	H	- Dismantle in reverse order of erection — top down - Erectors wear personal fall arrest at all times during dismantling - Do not remove tie-ins until dismantling reaches that level - Lower components to ground — never throw or drop - Maintain bracing integrity at each stage of dismantling - Barricade exclusion zone below dismantling operations - Stack and organize components for transport/storage upon removal - Competent person supervises entire dismantling operation

REQUIRED PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE Required	Specification / ANSI Standard	Condition / Notes
Hard Hat	ANSI/ISEA Z89.1, Type I, Class E	Chin strap required during erection/dismantling
Full-Body Fall Arrest Harness	ANSI/ASSP Z359.1; Z359.11	Required for erectors until guardrails installed
Self-Retracting Lifeline (SRL)	ANSI/ASSP Z359.14	Preferred over shock-absorbing lanyard for scaffold work
Safety Glasses	ANSI/ISEA Z87.1+	Impact-rated with side shields
Work Gloves (Cut-Resistant)	ANSI/ISEA 105, Cut Level A4+	Dexterity sufficient for pin/coupler handling
Steel-Toe Safety Boots	ASTM F2413 (I/75 C/75)	Ankle support; slip-resistant soles
High-Visibility Vest	ANSI/ISEA 107, Class 2 minimum	Required at all times on scaffold operations
Hearing Protection	ANSI S3.19 / S12.6 (NRR ≥ 25 dB)	Required when hammering or using power tools

EMERGENCY PROCEDURES

Fall from Scaffold:

- Call 911 immediately — do not move the victim unless in immediate danger
- Stabilize head and neck — assume spinal injury until medically cleared
- Control bleeding with direct pressure; apply tourniquet if trained and needed
- Cover victim to prevent shock — keep warm and still
- Clear area below scaffold and restrict access
- Preserve scene for investigation — do not alter scaffold

Scaffold Collapse / Structural Failure:

- Sound alarm — evacuate all personnel from scaffold and surrounding area
- Call 911 and report potential trapped/injured workers
- Establish exclusion zone — no re-entry until structural engineer clears area
- Account for all personnel by name at assembly point
- Do not attempt rescue from collapsed structure without professional rescue team
- Preserve all evidence for OSHA and incident investigation

Struck by Falling Object:

- Clear area and provide first aid to injured worker
- Call 911 for head injuries, fractures, or significant bleeding
- Apply ice/pressure to impact site; immobilize fractures
- Monitor for signs of concussion (dizziness, nausea, confusion)
- All head impacts require medical evaluation — do not allow worker to refuse

Emergency Contact Information:

- Emergency Services: 911
- Site Safety Manager: [Insert Name & Phone]
- Competent Person: [Insert Name & Phone]
- Nearest Hospital: [Insert Name, Address & Phone]
- OSHA Area Office: [Insert Local Number]

WORKER SIGN-OFF — I HAVE READ AND UNDERSTAND THIS JHA

#	Print Name	Signature	Company / Trade	Date
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

REVIEW & APPROVAL

Role	Name / Signature	Date	Initials
Prepared By (Author)			
Reviewed By (Safety Manager)			
Approved By (Project Manager)			
Client / Owner Rep			

This JHA must be reviewed and updated whenever job conditions change, after any incident, or at minimum annually.

FORBES SAFETY SOLUTIONS**JOB HAZARD ANALYSIS****STEEL ERECTION — JOB HAZARD ANALYSIS**

Reference: 29 CFR 1926 Subpart R — Steel Erection

PROJECT INFORMATION

Company Name:	[Enter Company Name]
Project Name:	[Enter Project Name]
Date:	[MM/DD/YYYY]
Supervisor:	[Enter Supervisor Name]
JHA Number:	[JHA-SE-001]
Work Activity:	Steel Erection — 29 CFR 1926 Subpart R

JOB HAZARD ANALYSIS — TASK STEPS & CONTROLS

The following analysis identifies task steps, associated hazards, risk levels, and control measures for steel erection operations. All workers must review this JHA before commencing work.

Task Step	Hazard(s)	Risk Level (H/M/L)	Control Measures
1. Site Preparation & Layout	Uneven terrain, underground utilities, overhead power lines, heavy equipment traffic	H	• Conduct site survey; identify/mark all utilities • Verify minimum clearance from power lines (20 ft for lines up to 350kV per Table A) • Establish equipment travel paths and barricades • Ground conditions assessed by competent person
2. Unloading & Staging Steel Members	Struck-by falling steel, crushing injuries during rigging, overloaded crane, pinch points	H	• Use tag lines to control loads; never stand under suspended loads • Inspect all rigging gear before each lift; remove defective slings • Establish exclusion zone around unloading area • Store steel on level ground with adequate dunnage and chocking
3. Column Erection & Plumbing	Falls from height, column tip-over, struck-by tools/bolts, structural instability	H	• 100% tie-off required above 15 ft (steel erection standard) • Anchor bolts inspected and verified per erection drawings • Columns guyed or braced immediately upon placement • Connectors use personal fall arrest systems with retractable lanyards
4. Beam Setting & Connection	Falls from height, struck-by steel beams, hand/finger crush injuries, unstable structural members	H	• Double connections or equivalent per 1926.756(c)(1) • Connectors positioned with PFAS to structural steel • Beam secured with minimum 2 bolts before load released • Communication via radio between crane operator, signalman, and connectors
5. Decking Installation	Falls through openings, falls from leading edge, slipping on unsecured decking, falling objects	H	• Controlled Decking Zone (CDZ) established per 1926.760 • CDZ limited to 90 ft / 3000 sq ft ahead of leading edge • Decking bundles secured immediately upon placement • Safety net systems or PFAS for workers outside CDZ
6. Bolt-Up & Final Connections	Falls from height, dropped tools/bolts striking workers below, hand injuries, ergonomic strain	M	• Tool lanyards required for all hand tools at height • Tethered bolt bags; no loose hardware in pockets • 100% tie-off maintained during bolt-up operations • Torque values verified per structural engineer specifications
7. Welding & Cutting Operations	Welding burns, arc flash eye injury, fire/explosion, toxic fume inhalation, hot work ignition	H	• Hot work permit obtained before each welding session • Fire watch maintained for 30 minutes after welding ceases • Welding screens/curtains deployed to protect adjacent workers • Forced ventilation or respiratory protection for confined areas • Fire extinguisher within 20 ft of welding operations

REQUIRED PERSONAL PROTECTIVE EQUIPMENT (PPE)

- ☐ Hard hat (ANSI Z89.1 Type I, Class E) — required at all times on site
- ☐ Safety glasses with side shields (ANSI Z87.1) — required at all times
- ☐ Welding hood/goggles (Shade 10-14) — required during welding/cutting operations
- ☐ High-visibility vest (ANSI/ISEA 107 Class 2 minimum) — required at all times
- ☐ Steel-toed boots (ASTM F2413) with puncture-resistant soles
- ☐ Cut-resistant gloves (ANSI A4 minimum) for steel handling; welding gloves for hot work
- ☐ Personal Fall Arrest System (PFAS): full-body harness, shock-absorbing lanyard, and SRL
- ☐ Hearing protection (NRR 25+) when noise exceeds 85 dBA
- ☐ Welding leathers/flame-resistant clothing during welding and cutting operations

EMERGENCY PROCEDURES

Emergency Contact Number:	<i>[Enter Phone Number]</i>
Nearest Hospital:	<i>[Enter Hospital Name & Address]</i>
Site Assembly Point:	<i>[Enter Location]</i>
First Aid Kit Location:	<i>[Enter Location]</i>
AED Location:	<i>[Enter Location]</i>
Fire Extinguisher Locations:	<i>[Enter Locations]</i>
Rescue Plan for Fall Arrest:	<i>[Describe Suspension Trauma Rescue Procedure]</i>

CREW SIGN-OFF — I HAVE REVIEWED AND UNDERSTAND THIS JHA

By signing below, each crew member acknowledges they have reviewed this Job Hazard Analysis, understand the identified hazards and control measures, and agree to follow all safety procedures outlined herein.

Printed Name	Signature	Date

ADDITIONAL HAZARDS / SITE-SPECIFIC NOTES

Use this section to document any additional hazards, site-specific conditions, or supplemental control measures not covered above.

JHA REVIEW & APPROVAL

Role	Name / Signature	Date
Prepared By (Competent Person):		
Reviewed By (Site Superintendent):		
Approved By (Project Manager):		

DISCLAIMER: This JHA template is provided as a starting point for site-specific hazard analysis. It must be reviewed and customized by a competent person familiar with the specific project conditions. Forbes Safety Solutions is not liable for misuse or failure to adapt this template to actual site conditions. Always consult current OSHA regulations and site-specific safety plans.

FALL PROTECTION PROGRAM

Written Safety Program

[COMPANY NAME]

[Company Address]

[City, State ZIP]

[Phone Number]

Revision Date: [MM/DD/YYYY]

Revision Number: [1.0]

Prepared by Forbes Safety Solutions

Document Control

This document is the property of [COMPANY NAME]. It must be reviewed and updated at least annually or when conditions change.

Revision #	Date	Description of Change	Approved By
1.0	[Date]	Initial Release	[Name/Title]

Table of Contents

Note: Right-click and select "Update Field" to refresh the Table of Contents after editing this document.

1. Purpose and Scope

1.1 Purpose

The purpose of this Fall Protection Program is to establish the policies, procedures, and practices that [COMPANY NAME] will implement to protect employees from fall hazards. This program provides a systematic approach to identifying fall hazards, selecting appropriate fall protection methods, and ensuring all employees are properly trained and equipped to work safely at heights.

This written program fulfills the requirements of OSHA standards for employers to develop and implement a fall protection plan when employees are exposed to fall hazards of 6 feet or more in construction (29 CFR 1926.502) or 4 feet or more in general industry (29 CFR 1910.28).

1.2 Scope

This program applies to all [COMPANY NAME] employees, subcontractors, and temporary workers who are exposed to fall hazards during the course of their work. This includes, but is not limited to, work performed on:

- Unprotected sides and edges 6 feet (construction) or 4 feet (general industry) or more above a lower level
- Leading edges
- Hoist areas
- Holes (including skylights)
- Formwork and reinforcing steel
- Ramps, runways, and other walkways
- Excavations
- Dangerous equipment
- Overhand bricklaying and related work
- Roofing work (both low-slope and steep-slope)
- Precast concrete erection
- Wall openings
- Residential construction activities

1.3 Regulatory References

- 29 CFR 1926.500 – Scope, Application, and Definitions (Construction)
- 29 CFR 1926.501 – Duty to Have Fall Protection (Construction)
- 29 CFR 1926.502 – Fall Protection Systems Criteria and Practices (Construction)
- 29 CFR 1926.503 – Training Requirements (Construction)
- 29 CFR 1910.28 – Duty to Have Fall Protection (General Industry)

- 29 CFR 1910.29 – Fall Protection Systems and Falling Object Protection Criteria (General Industry)
- 29 CFR 1910.30 – Training Requirements (General Industry)
- ANSI Z359.1 – Safety Requirements for Personal Fall Arrest Systems
- ANSI Z359.2 – Minimum Requirements for a Comprehensive Managed Fall Protection Program
- ANSI Z359.6 – Specifications and Design Requirements for Active Fall Protection Systems

2. Definitions

Anchorage: A secure point of attachment for lifelines, lanyards, or deceleration devices. Must be capable of supporting at least 5,000 pounds per employee attached, or designed, installed, and used as part of a complete PFAS maintaining a safety factor of at least two, under the supervision of a qualified person.

Competent Person: One who is capable of identifying existing and predictable fall 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 them.

Controlled Access Zone (CAZ): An area in which certain work may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems, and access to the zone is controlled.

Deceleration Device: Any mechanism, such as a rope grab, rip-stitch lanyard, specially-woven lanyard, tearing or deforming lanyards, automatic self-retracting lifeline/lanyard, that serves to dissipate energy during a fall arrest.

Guardrail System: A barrier erected to prevent employees from falling to lower levels. Consists of top rail (42 inches $\pm$ 3 inches), mid rail, and toeboards where required.

Hole: A gap or void 2 inches or more in its least dimension, in a floor, roof, or other walking/working surface.

Lanyard: A flexible line of rope, wire rope, or strap that generally has a connector at each end for connecting the body belt or body harness to a deceleration device, lifeline, or anchorage.

Leading Edge: The edge of a floor, roof, or formwork for a floor or other walking/working surface that changes location as additional floor, roof, decking, or formwork sections are placed, formed, or constructed.

Personal Fall Arrest System (PFAS): A system used to arrest an employee in a fall from a working level. Consists of an anchorage, connectors, body harness, and may include a lanyard, deceleration device, lifeline, or suitable combinations of these.

Qualified Person: A person with a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience has successfully demonstrated the ability to solve or resolve problems relating to the subject matter.

Safety Net System: A system of nets and hardware installed below a walking/working surface to catch employees who fall.

Self-Retracting Lifeline/Lanyard (SRL): A deceleration device that contains a drum-wound line that can be slowly extracted from, or retracted onto, the drum under slight tension during normal employee movement, and which, after onset of a fall, automatically locks the drum and arrests the fall.

Warning Line System: A barrier erected on a roof to warn employees that they are approaching an unprotected roof side or edge, and which designates an area in which roofing work may take place without the use of guardrail, body belt, or safety net systems.

3. Roles and Responsibilities

3.1 Employer / Management

- Establish, implement, and maintain this Fall Protection Program
- Provide all necessary fall protection equipment at no cost to employees
- Designate a competent person for each work site where fall hazards exist
- Ensure all employees receive initial and refresher training on fall protection
- Conduct periodic program audits to evaluate effectiveness
- Investigate all fall-related incidents and near misses
- Ensure subcontractors comply with this program when working on company-controlled sites
- Allocate adequate resources for fall protection equipment, training, and rescue capabilities
- Maintain documentation of training records, inspections, and incident reports

3.2 Competent Person

- Conduct fall hazard assessments and surveys before work begins at each job site
- Select appropriate fall protection methods for each task and location
- Identify and evaluate anchorage points to ensure they meet the 5,000 lb. requirement
- Inspect all fall protection equipment prior to each use and remove defective equipment from service
- Monitor work operations to ensure compliance with this program
- Authorize employees to enter controlled access zones
- Stop work immediately when imminent fall hazards are identified
- Ensure that a site-specific rescue plan is in place before any work at heights begins
- Document hazard surveys, inspections, and corrective actions

3.3 Supervisors

- Enforce compliance with this Fall Protection Program at all times
- Ensure employees under their supervision are trained before performing work at heights
- Verify that appropriate fall protection equipment is available and being used correctly
- Conduct daily pre-work safety briefings that include fall hazard awareness
- Report all fall-related incidents, near misses, and equipment deficiencies immediately
- Coordinate with the competent person on fall protection requirements for each task
- Ensure rescue equipment and trained rescuers are available before elevated work begins

3.4 Employees

- Comply with all fall protection requirements established by this program
- Properly use and care for all fall protection equipment as trained
- Inspect personal fall protection equipment before each use and report any defects
- Report fall hazards, unsafe conditions, and equipment damage to their supervisor immediately
- Attend and actively participate in all required fall protection training
- Never alter, misuse, or remove fall protection equipment or systems
- Understand and follow the site-specific rescue plan
- Refuse to perform work at heights if proper fall protection is not in place

4. Fall Protection Procedures

4.1 Fall Hazard Survey

Before work begins at any job site, the competent person shall conduct a comprehensive fall hazard survey to identify all areas where employees may be exposed to fall hazards. The survey shall:

- Identify all locations where employees will be working at heights of 6 feet or more above a lower level (construction) or 4 feet or more (general industry)
- Document the specific fall hazards present at each location (unprotected edges, holes, skylights, leading edges, etc.)
- Determine the appropriate fall protection method for each identified hazard
- Identify suitable anchorage points and evaluate their load-bearing capacity
- Assess environmental factors that may affect fall protection (wind, weather, temperature, lighting)
- Evaluate access and egress routes to elevated work areas
- Identify potential falling object hazards to workers below
- Document the survey results on the Fall Hazard Survey Form (Appendix A)

The fall hazard survey shall be updated whenever site conditions change, new work activities begin, or the competent person identifies previously unrecognized hazards.

4.2 Fall Protection Methods

4.2.1 Guardrail Systems

Guardrail systems are the preferred method of fall protection and shall be used wherever feasible.

Guardrail systems shall meet the following requirements:

- Top rail height shall be 42 inches (± 3 inches) above the walking/working level
- Mid rails shall be installed midway between the top rail and the walking/working surface
- Guardrails shall be capable of withstanding a force of at least 200 pounds applied within 2 inches of the top edge in any outward or downward direction
- Mid rails shall withstand a force of at least 150 pounds in any outward or downward direction
- The surface of the top rail shall be smooth to prevent punctures, lacerations, or snagging of clothing
- Toeboards shall be installed when materials or tools could fall on workers below (minimum 3.5 inches tall)
- Openings in guardrail systems shall not allow passage of a sphere larger than 19 inches in diameter
- Wire rope used as a top rail shall be flagged with high-visibility material at intervals not exceeding 6 feet

4.2.2 Personal Fall Arrest Systems (PFAS)

When guardrail systems are not feasible, personal fall arrest systems shall be used. All PFAS components shall meet ANSI Z359 standards and shall include:

- Full-body harness (body belts are NOT permitted for fall arrest)
- Connecting device: shock-absorbing lanyard, self-retracting lifeline (SRL), or rope grab with lifeline
- Anchorage point capable of supporting at least 5,000 pounds per attached employee
- Total fall distance must be calculated and documented to ensure adequate clearance below the worker (free fall distance shall not exceed 6 feet)
- The system must bring the employee to a complete stop and limit the maximum deceleration distance to 3.5 feet
- The maximum arresting force on an employee shall not exceed 1,800 pounds when using a body harness
- Employees must be able to be rescued or rescue themselves within 6 minutes of a fall arrest to prevent suspension trauma

4.2.3 Safety Net Systems

Safety net systems may be used where other methods are not practical. Safety nets shall:

- Be installed as close as practical beneath the walking/working surface, but no more than 30 feet below
- Extend outward from the outermost projection of the work surface (8 feet for up to 5 feet of fall, 10 feet for 5-10 feet, 13 feet for more than 10 feet)
- Be drop-tested or certified by a qualified person after installation and before use
- Have mesh openings no larger than 6 inches by 6 inches
- Be inspected at least weekly for wear, damage, and other deterioration
- Have all objects that have fallen into the net removed as soon as possible

4.2.4 Hole Covers

All holes on walking/working surfaces shall be covered or protected by guardrails. Hole covers shall:

- Be capable of supporting at least twice the weight of employees, equipment, and materials that may be imposed on the cover at any one time
- Be secured to prevent accidental displacement by wind, equipment, or workers
- Be clearly marked with the word "HOLE" or "COVER" to provide warning of the hazard
- Be color coded or otherwise identified as hole covers where marking is not practical

4.2.5 Controlled Access Zones

Controlled access zones may be established for certain operations (leading edge work, overhand bricklaying, precast concrete erection) as an alternative fall protection method. Controlled access zones shall:

- Be defined by a control line erected not less than 6 feet and not more than 25 feet from the unprotected edge
- Be marked with control lines consisting of ropes, wires, or tapes, flagged at 6-foot intervals, supported at a height of 39 to 45 inches
- Restrict access to only those employees actively engaged in the specific work operation
- Be supervised by the competent person at all times when in use
- Never be used as a substitute for conventional fall protection where such protection is feasible

4.2.6 Warning Line Systems

Warning line systems may be used on low-slope roofs (4:12 or less) and shall meet the following criteria:

- Erected around all sides of the roof work area not less than 6 feet from the roof edge
- Made of rope, wire, or chain flagged with high-visibility material at intervals not exceeding 6 feet
- Rigged so that the lowest point (including sag) is at least 34 inches and the highest point is no more than 39 inches from the roof surface
- Stanchions capable of resisting a force of at least 16 pounds without tipping over
- Must be used in conjunction with a safety monitor or other fall protection for work within the warning line area

4.3 Anchorage Requirements

Anchorage points are critical to the effectiveness of personal fall arrest systems. The following requirements apply:

- Anchorages for PFAS shall be capable of supporting at least 5,000 pounds per employee attached, or be designed, installed, and used under the supervision of a qualified person as part of a complete system maintaining a safety factor of at least two
- Anchorages for positioning device systems shall be capable of supporting at least twice the potential impact load or 3,000 pounds, whichever is greater
- Anchorages shall be independent of any anchorage used to support or suspend platforms
- The competent person shall evaluate and approve all anchorage points before use
- Manufactured anchorage devices shall be installed according to the manufacturer's instructions
- Structural steel members, concrete inserts, and other structural elements may serve as anchorage points when evaluated by a qualified person

- Cross-arm straps, beam clamps, and other temporary anchorage connectors shall be inspected before each use
- Anchorage points shall be located above the D-ring attachment point on the harness whenever possible to minimize free fall distance

4.4 Equipment Inspection

All fall protection equipment shall be inspected in accordance with the following schedule:

4.4.1 Pre-Use Inspection (Before Each Use)

Every employee shall inspect their personal fall protection equipment before each use. At a minimum, the following checks shall be performed:

Equipment	Inspection Points
Full-Body Harness	Check webbing for cuts, burns, fraying, abrasion, chemical damage, or excessive wear. Inspect all buckles, D-rings, and grommets for cracks, distortion, or corrosion. Verify all labels and markings are legible. Ensure proper fit and adjustment.
Shock-Absorbing Lanyard	Inspect webbing/rope for cuts, burns, fraying, or damage. Check snap hooks for gate closure, locking mechanism, and distortion. Verify shock absorber has not been deployed (pack should be intact). Check stitching for pulled or cut threads.
Self-Retracting Lifeline (SRL)	Test retraction and locking mechanism. Inspect housing for cracks or damage. Check cable/webbing for cuts, kinks, or corrosion. Verify snap hook operates properly. Ensure inspection tag/label is current.
Rope Grab / Vertical Lifeline	Inspect rope for fraying, cuts, or abrasion. Check rope grab for proper operation and locking. Verify compatibility between rope grab and lifeline diameter. Inspect termination hardware.
Anchorage Connectors	Inspect cross-arm straps, beam clamps, or other connectors for deformation, cracks, or wear. Verify proper engagement and load rating.

4.4.2 Periodic Formal Inspection

The competent person shall conduct formal documented inspections of all fall protection equipment at least every six (6) months, or more frequently as specified by the manufacturer. Use the Harness Inspection Checklist (Appendix B) for documentation.

4.4.3 Equipment Removal from Service

Fall protection equipment shall be immediately removed from service and destroyed or tagged "Out of Service" when:

- The equipment has been subjected to impact forces during a fall arrest event
- The equipment shows signs of damage, excessive wear, or deterioration during inspection
- The equipment has been exposed to chemicals, extreme heat, or other conditions that may compromise its integrity
- The equipment has reached its manufacturer's recommended service life

- Any component fails to operate as designed during inspection or testing
- Labels or markings are missing or illegible, preventing identification of the manufacturer, model, or date of manufacture

4.5 Rescue Planning

A rescue plan shall be developed and in place before any work at heights begins. Prompt rescue is essential to prevent suspension trauma (harness hang syndrome), which can become life-threatening within minutes of a fall arrest event.

4.5.1 Rescue Requirements

- Rescue of a fallen worker must be accomplished within six (6) minutes of the fall arrest
- Self-rescue methods shall be provided where feasible (trauma relief straps, self-rescue devices)
- Non-entry rescue methods are preferred over entry rescue methods where possible
- The rescue plan shall identify the rescue method(s), equipment, and trained personnel for each work location
- Rescue equipment shall be readily available at the work site (rescue retrieval systems, ladders, aerial lifts, etc.)
- At least two employees at each work site shall be trained in fall rescue procedures
- Emergency services (911) shall be identified as a backup rescue resource, but shall not be the primary rescue plan
- Rescue drills shall be conducted at least annually to verify the effectiveness of the plan

4.5.2 Suspension Trauma Prevention

All employees who use personal fall arrest systems shall be trained to recognize the symptoms of suspension trauma and the following preventive measures:

- Trauma suspension straps shall be attached to all full-body harnesses
- Employees shall be trained to use leg straps to maintain blood circulation if suspended
- Employees shall try to maintain leg movement and push against any available surface
- Rescued employees who have been suspended shall be placed in a seated or reclined position — never lay flat immediately, as sudden blood redistribution can cause cardiac arrest
- Medical evaluation shall be obtained for any employee who has been suspended in a harness for any period of time

5. Training Requirements

5.1 Initial Training

[COMPANY NAME] shall provide training for each employee who might be exposed to fall hazards. Training shall be provided by a competent person qualified in the following areas and shall enable each employee to recognize the hazards of falling and the procedures to follow to minimize those hazards.

Training shall cover, at a minimum:

- The nature of fall hazards in the work area
- The correct procedures for erecting, maintaining, disassembling, and inspecting fall protection systems
- 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 correct procedures for the handling and storage of equipment and materials and the erection of overhead protection
- The role of employees in the fall protection plan and this program
- OSHA standards applicable to fall protection (29 CFR 1926.500-503, 29 CFR 1910.28-30)
- The limitations of each fall protection system
- Proper fitting and use of full-body harnesses
- Equipment inspection procedures (pre-use and formal)
- Fall distance calculations and swing-fall hazards
- Anchorage point selection and evaluation
- Rescue procedures and suspension trauma awareness
- Incident and near-miss reporting procedures

5.2 Retraining

Retraining shall be provided when:

- Changes in the workplace render previous training obsolete
- Changes in the types of fall protection systems or equipment being used
- Inadequacies in an affected employee's knowledge or use of fall protection systems indicate that the employee has not retained the requisite understanding or skill
- An employee is observed failing to comply with fall protection requirements
- After any fall-related incident or near miss involving the employee
- At minimum, annual refresher training shall be provided to all employees exposed to fall hazards

5.3 Training Documentation

Training records shall be maintained and include:

- Name and signature of each employee trained
- Date(s) of training
- Name and qualifications of the trainer(s)
- Subject matter and duration of training
- Type of fall protection systems covered
- Verification that employees demonstrated competency in equipment use and inspection

Training records shall be maintained for the duration of employment and shall be made available upon request. Use the Training Sign-Off Sheet (Appendix D) to document training sessions.

6. Inspection and Audit Procedures

6.1 Ongoing Site Inspections

The competent person shall conduct daily inspections of all fall protection systems in use, including:

- Visual inspection of guardrail systems for damage, missing components, or displacement
- Verification that hole covers are in place, secured, and properly marked
- Inspection of PFAS anchorage points for integrity
- Review of controlled access zone and warning line system configurations
- Observation of employee compliance with fall protection requirements
- Assessment of changing site conditions that may introduce new fall hazards

6.2 Program Audit

[COMPANY NAME] shall conduct a formal audit of this Fall Protection Program at least annually. The audit shall evaluate:

- Effectiveness of fall protection measures in preventing falls and fall-related injuries
- Compliance with OSHA standards and this written program
- Adequacy of training programs and employee competency
- Condition and availability of fall protection equipment
- Completeness and accuracy of documentation and recordkeeping
- Effectiveness of rescue plans and rescue drill results
- Investigation and corrective action follow-up for fall-related incidents
- Employee feedback and suggestions for program improvement

Audit findings shall be documented and corrective actions shall be tracked to completion. Management shall review audit results and authorize necessary changes to this program.

7. Documentation and Recordkeeping

[COMPANY NAME] shall maintain the following records related to this Fall Protection Program:

Record Type	Retention Period	Responsible Party
Fall Hazard Survey Forms	Duration of project + 3 years	Competent Person
Equipment Inspection Records	Duration of equipment service life + 1 year	Competent Person
Training Records	Duration of employment + 3 years	Safety Manager
Incident/Near Miss Reports	5 years minimum	Safety Manager
Rescue Plan Documentation	Duration of project	Competent Person
Program Audit Reports	5 years minimum	Management
Equipment Manufacturer Documentation	Duration of equipment service life	Safety Manager
Competent Person Designation Records	Duration of assignment	Management

All records shall be readily accessible for review by OSHA compliance officers, employees, and their designated representatives. Records shall be stored in a secure location and backed up periodically.

Appendix A: Fall Hazard Survey Form

Field	Information
Project Name:	[]
Project Location:	[]
Survey Date:	[]
Competent Person:	[]
Survey Revision #:	[]

Hazard Identification

Location / Area	Fall Hazard Description	Height (ft)	Protection Method Selected	Anchorage Point(s)	Action Required

Additional Notes / Observations

Notes

Competent Person Signature: _____ Date: _____

Reviewed By: _____ Date: _____

Appendix B: Harness Inspection Checklist

Field	Information
Inspector Name:	[]
Inspection Date:	[]
Harness Manufacturer:	[]
Harness Model/Serial #:	[]
Date of Manufacture:	[]
Assigned To:	[]

Inspection Checklist

Inspection Item	Pass	Fail	N/A	Comments
Webbing: No cuts, burns, fraying, or abrasion				
Webbing: No chemical damage or discoloration				
Webbing: No excessive stretching or distortion				
Stitching: No pulled, cut, or broken threads				
D-Rings: No cracks, distortion, or corrosion				
D-Rings: Properly positioned and move freely				
Buckles: Operate and engage properly				
Buckles: No cracks, distortion, or corrosion				
Grommets: No damage, distortion, or missing rivets				
Labels: Manufacturer, model, date, size legible				
Tongue/Pass-through buckles: Engage securely				
Quick-connect buckles: Lock and release properly				
Padding/Comfort features: Intact and functional				
Trauma straps: Present and functional				
Previous fall arrest event: NO (if YES, remove from service)				

Overall Condition: ☐ PASS — Return to Service ☐ FAIL — Remove from Service

If FAIL, describe deficiency: _____

Inspector Signature: _____ Date: _____

Next Scheduled Inspection Date: _____

Appendix C: Rescue Plan Template

Field	Information
Project Name:	[]
Project Location:	[]
Date Prepared:	[]
Prepared By:	[]
Emergency Phone #:	[]
Nearest Hospital:	[]
Hospital Address:	[]

Rescue Methods by Work Location

Work Location	Rescue Method (Self-Rescue / Assisted / Mechanical)	Equipment Required	Trained Rescue Personnel	Estimated Rescue Time

Rescue Equipment Inventory

Equipment Description	Quantity	Location Stored	Last Inspection Date	Condition

Rescue Procedures

1. Upon observation of a fall arrest event, immediately call for help and activate the rescue plan.
2. Call 911 as backup while initiating on-site rescue procedures.
3. Communicate with the fallen worker — assess consciousness and injuries.
4. Instruct the worker to use trauma relief straps and maintain leg movement if conscious.
5. Deploy rescue equipment and execute the designated rescue method.
6. Complete rescue within 6 minutes of the fall arrest.
7. Once rescued, position the worker in a seated/reclined position — do NOT lay flat.
8. Provide first aid and await EMS arrival.
9. Preserve the scene and all equipment for incident investigation.
10. Complete the incident report within 24 hours.

Rescue Drill Log

Drill Date	Location	Scenario	Rescue Time Achieved	Participants	Corrective Actions Needed

Plan Prepared By: _____ Date: _____

Approved By: _____ Date: _____

Appendix D: Training Sign-Off Sheet

Field	Information
Training Topic:	Fall Protection Program
Training Date:	[]
Training Location:	[]
Trainer Name:	[]
Trainer Qualifications:	[]
Training Duration:	[]

Topics Covered

- ☐ Fall hazard identification and avoidance
- ☐ Fall protection systems (guardrails, PFAS, nets, warning lines, CAZ)
- ☐ Personal fall arrest system use and limitations
- ☐ Harness fitting, adjustment, and donning
- ☐ Equipment inspection procedures (pre-use and formal)
- ☐ Anchorage point selection and evaluation
- ☐ Fall distance calculations
- ☐ Rescue procedures and suspension trauma prevention
- ☐ Incident and near-miss reporting
- ☐ Applicable OSHA standards

Employee Acknowledgment

By signing below, I acknowledge that I have received training in the above topics, understand the material presented, had the opportunity to ask questions, and agree to comply with the fall protection requirements of [COMPANY NAME].

#	Employee Name (Print)	Employee Signature	Date	Company/Trade

Trainer Signature: _____ Date: _____

FORBES SAFETY SOLUTIONS

Fall Rescue Plan

Prompt Rescue Procedures for Suspended Workers

Prepared for:

[COMPANY NAME]

Reference Standards:

29 CFR 1926.502(d)(20) | ANSI Z359.2 | ANSI Z359.4

Date: [DATE] | Revision: [REV NUMBER]

Table of Contents

1. Purpose

This Fall Rescue Plan establishes the procedures, equipment, and training requirements for the prompt rescue of employees who have fallen and are suspended in a personal fall arrest system. This plan ensures compliance with 29 CFR 1926.502(d)(20), which requires that the employer provide for prompt rescue of employees in the event of a fall, or assure that employees are able to rescue themselves.

Suspension in a fall arrest system is a life-threatening emergency. Without prompt rescue, a suspended worker can develop suspension trauma (orthostatic intolerance) which can cause serious injury or death. This plan ensures [COMPANY NAME] is prepared to rescue fallen workers within the critical time window.

2. Scope

This Fall Rescue Plan applies to all [COMPANY NAME] work activities where employees use personal fall arrest systems (PFAS), including but not limited to:

- Steel erection and structural work
- Roofing and rooftop work
- Scaffold work at heights
- Crane operations and maintenance
- Tower climbing (communication, utility)
- Elevated platform work
- Bridge and overpass work
- Excavation and confined space egress
- Any work at heights requiring fall arrest equipment

3. Responsibilities

3.1 Management

- Ensure a site-specific rescue plan is developed before any work at heights begins
- Provide rescue equipment and maintain it in ready condition
- Fund rescue training and drill programs

3.2 Safety Manager / Competent Person

- Develop site-specific rescue plans for each project
- Ensure rescue equipment is available, inspected, and operational
- Coordinate rescue team training and drills
- Review and update rescue plans when site conditions change
- Conduct post-rescue debriefs and documentation

3.3 Rescue Team Members

- Maintain current rescue training and certifications
- Participate in rescue drills at least quarterly
- Inspect rescue equipment before each shift
- Be available and capable of responding within the target rescue time

3.4 Supervisors

- Brief workers on the rescue plan before work at heights begins
- Ensure rescue equipment is on-site and accessible
- Initiate rescue procedures immediately upon a fall event
- Account for all workers and maintain communication

3.5 Employees

- Know the site-specific rescue plan and their role in it
- Carry suspension relief straps when using a fall arrest harness
- Immediately alert others if a fall occurs
- Attempt self-rescue if trained and able

4. Suspension Trauma / Orthostatic Intolerance

Suspension trauma (also called orthostatic intolerance or harness-induced pathology) is a life-threatening condition that occurs when a person is held motionless in an upright position in a harness.

4.1 How Suspension Trauma Occurs

- When suspended motionless in a harness, the leg straps compress veins and restrict blood flow
- Blood pools in the legs due to gravity and cannot return to the heart

- Reduced blood return decreases cardiac output and blood pressure
- Vital organs (brain, kidneys, heart) become deprived of oxygenated blood
- The condition can begin within minutes of suspension

4.2 Time Critical Nature

CRITICAL: Suspension trauma can become fatal within 30 minutes of motionless suspension. Some studies indicate serious effects can begin in as little as 3 to 5 minutes. Rescue must be treated as immediately dangerous to life and health (IDLH).

Time Suspended	Potential Effects	Urgency Level
0–5 minutes	Discomfort, numbness in legs, tingling	High — initiate rescue immediately
5–15 minutes	Pain, dizziness, nausea, elevated heart rate, anxiety	Critical — rescue must be underway
15–30 minutes	Loss of consciousness, organ damage, cardiac arrhythmia	Life-threatening — minutes matter
30+ minutes	Cardiac arrest, renal failure, death	Fatal if not rescued

4.3 Contributing Factors

- Immobility — conscious workers should be instructed to pump their legs to promote circulation
- Injury from the fall — pain or injury may prevent movement
- Unconsciousness — eliminates all muscle activity
- Cold temperatures — accelerate the onset of symptoms
- Dehydration and fatigue — reduce tolerance
- Tight harness straps — increase venous pooling

4.4 Suspension Relief Straps

All employees using personal fall arrest systems shall carry suspension relief straps (trauma straps) attached to their harness. These straps allow a conscious suspended worker to stand in the straps, relieving pressure on the legs and promoting blood circulation while awaiting rescue.

5. Rescue Methods

[COMPANY NAME] shall evaluate and implement one or more of the following rescue methods for each work situation:

5.1 Self-Rescue

Self-rescue is the preferred first response when the worker is conscious, uninjured, and trained:

- Worker deploys suspension relief straps and stands to relieve leg pressure
- Worker uses a self-rescue device (retractable descent device) to lower themselves to a safe level
- Worker climbs back to the work surface if possible

Self-rescue training is provided as part of the fall protection training program. Not all situations allow self-rescue — workers must also know when to wait for assisted rescue.

5.2 Assisted Rescue (Non-Entry)

Assisted rescue is performed from an adjacent safe location without the rescuer entering the fall zone:

- Rescue pole systems — a pole with a hook mechanism to reach the fallen worker and connect a lowering line
- Retrieval systems — pre-rigged mechanical retrieval winches that can raise or lower a worker
- Reach and pull — from an adjacent elevated surface, rescuers reach the worker with a hook or strap
- Ladder access — position an extension ladder to the suspended worker's location

5.3 Mechanical Rescue

Mechanical rescue uses equipment to reach and lower the suspended worker:

- Aerial lifts (boom lifts, scissor lifts) positioned beneath the worker
- Crane with personnel basket (last resort, follow OSHA crane-suspended personnel platform requirements)
- Self-retracting lifeline (SRL) with rescue/retrieval capability — some SRL models include built-in rescue winches
- Davit arm or tripod with rescue winch

5.4 Rescue Method Selection

The rescue method shall be selected based on the specific site conditions. Factors include:

- Height of the fall arrest point
- Location accessibility (can a lift or ladder reach the worker?)
- Number of workers at height simultaneously
- Availability and proximity of rescue equipment
- Environmental conditions (wind, weather, confined areas)

- Worker condition (conscious, injured, unconscious)

6. Rescue Equipment Inventory

[COMPANY NAME] shall maintain the following rescue equipment, as applicable to site conditions:

Equipment	Quantity Required	Location	Inspection Frequency
Rescue/retrieval SRL with winch	Per site-specific plan	[SPECIFY]	Before each use, annually by manufacturer
Suspension relief straps	One per worker in PFAS	Attached to each harness	Before each use
Rescue pole/hook system	1 per work area	[SPECIFY]	Monthly and before each use
Portable rescue kit (rope, pulleys, carabiners)	1 per work area	[SPECIFY]	Monthly and before each use
Aerial lift (for rescue access)	Per site-specific plan	[SPECIFY]	Per manufacturer schedule
Extension ladder(s)	Per site-specific plan	[SPECIFY]	Before each use
First aid kit (with trauma supplies)	1 per work area	[SPECIFY]	Monthly
Communication devices (radios)	1 per worker and rescue team	[SPECIFY]	Daily function check

7. Rescue Team Training and Drills

7.1 Training Requirements

Designated rescue team members shall receive training in:

1. Suspension trauma — recognition, time urgency, contributing factors
2. Rescue equipment setup, operation, and inspection
3. Rescue techniques (self-rescue, assisted, mechanical)
4. Communication procedures during rescue
5. First aid / CPR (current certifications required)

6. Post-rescue medical considerations
7. Site-specific rescue plan review

7.2 Drill Requirements

- Rescue drills shall be conducted at least quarterly
- Drills shall simulate realistic rescue scenarios at actual or similar work locations
- Each drill shall be timed — target rescue time shall be established for each scenario
- Drill results shall be documented using the Rescue Drill Documentation Form (Appendix B)
- Deficiencies identified during drills shall be corrected and the drill repeated
- All rescue team members shall participate in at least two drills per year

8. Site-Specific Rescue Planning

Before any work at heights begins, a site-specific rescue plan shall be developed addressing the following:

8.1 Key Planning Questions

8. How will the rescuer reach the suspended worker? (Lift, ladder, rope access, adjacent structure)
9. What rescue equipment is needed? (Retrieval SRL, rescue pole, aerial lift, lowering system)
10. Where is the rescue equipment located? (On-site, staged at work area, in rescue cache)
11. What is the estimated rescue time? (Must be achievable in under 15 minutes)
12. Who are the designated rescue team members for this shift?
13. How will the rescue be communicated? (Radio, verbal, phone)
14. Where will emergency medical services stage? (Access route, staging area)
15. Are there any environmental hazards that affect rescue? (Electrical, chemical, confined space)

8.2 Estimated Rescue Time

The site-specific rescue plan must demonstrate that rescue can be accomplished within a time frame that prevents suspension trauma. The target rescue time shall account for:

- Notification time — time from fall event to rescue team alert
- Response time — time for rescue team to reach the rescue equipment
- Setup time — time to position equipment and access the worker

- Rescue time — time to reach the worker and lower them to a safe surface

Total target rescue time: Not to exceed 15 minutes from fall event to worker on safe surface.

9. Communication During Rescue

Clear communication is essential during a rescue operation:

16. The person discovering the fall event shall immediately alert the designated rescue team and supervisor
17. Call 911 or local emergency services immediately — do not wait to see if rescue is successful
18. One person shall serve as the rescue coordinator to direct the operation
19. Maintain voice or radio contact with the suspended worker (if conscious) to assess condition and provide instructions
20. Keep non-essential personnel clear of the rescue area
21. Designate a person to guide emergency medical services to the scene

10. Post-Rescue Medical Treatment

Post-rescue medical treatment is critical and must follow specific protocols:

10.1 DO NOT Lay the Victim Flat Immediately

CRITICAL WARNING: Do NOT lay a rescued suspension trauma victim flat on their back immediately after rescue.

When a person has been suspended for any length of time, blood has pooled in the lower extremities. Laying them flat causes a sudden rush of pooled, deoxygenated, toxin-laden blood back to the heart, which can cause cardiac arrest ("rescue death" or "reflow syndrome").

- Place the rescued worker in a seated or semi-reclined position (W-position or legs bent at the knees)
- Gradually transition to a flat position over 30–40 minutes as medical personnel direct
- Monitor for signs of shock, cardiac distress, and renal failure
- Provide supplemental oxygen if available and trained

10.2 Medical Monitoring

- All rescued workers shall receive medical evaluation regardless of apparent condition

- Monitor vital signs continuously until EMS arrives
- Watch for delayed onset symptoms — renal failure can occur hours after rescue
- Inform EMS of the duration of suspension and any symptoms observed
- Do not allow the worker to return to work without medical clearance

11. Rescue from Specific Situations

11.1 Cranes

- Pre-plan rescue before climbing — identify how to reach the worker on the crane structure
- Consider SRL with rescue/retrieval capability at the crane cab and boom
- Aerial lifts may be positioned to reach workers on crane structures
- Ensure crane operator can be contacted to stop crane operations during rescue

11.2 Towers (Communication, Utility)

- Tower rescue requires specialized rope rescue training and equipment
- Pre-rig rescue systems at work locations before climbing begins
- Use tower-specific rescue kits (descender devices, pick-off rescue systems)
- Establish ground-based rescue capability (rigging for lowering systems)
- Consider weather conditions — wind and lightning increase rescue complexity

11.3 Scaffolds

- Ensure scaffold access points allow rescue equipment (ladders, lifts) to reach all levels
- Pre-position rescue equipment at scaffold access points
- Plan for rescue from inside the scaffold (through access hatches) or outside (via aerial lift)
- Ensure scaffold design does not create obstructions to rescue

11.4 Excavations

- Workers in excavations may become suspended in harness systems at edge transitions
- Pre-position retrieval systems at excavation entry points
- Ensure rescue plan addresses both fall rescue and excavation cave-in protocols

- Coordinate with confined space rescue procedures if the excavation is classified as a permit-required confined space

12. Program Review

- Review this plan at least annually
- Update the site-specific plan whenever conditions change (new work areas, equipment changes, personnel changes)
- Review after every actual rescue event
- Review after every drill that identifies deficiencies
- Incorporate lessons learned from industry incidents

13. Recordkeeping

- Site-specific rescue plans for each project
- Rescue team training records and certifications
- Rescue drill documentation (date, participants, scenario, time, results)
- Rescue equipment inspection records
- Actual rescue event reports
- Post-rescue medical evaluation records

Appendix A: Site-Specific Rescue Plan Form

SITE-SPECIFIC FALL RESCUE PLAN

Project Name / Job Site: _____

Date Prepared: _____

Prepared By: _____

Work Description: _____

Height of Work (feet): _____

Fall Arrest System Used: _____

Rescue Method(s) — Check all that apply:

- ☐ Self-Rescue (retractable descent device, climb back)
- ☐ Assisted Rescue — Rescue pole/hook system
- ☐ Assisted Rescue — Retrieval winch (pre-rigged)
- ☐ Mechanical Rescue — Aerial lift (boom/scissor)
- ☐ Mechanical Rescue — SRL with rescue capability
- ☐ Mechanical Rescue — Davit/tripod with rescue winch
- ☐ Other: _____

How will the rescuer reach the suspended worker?

What rescue equipment is needed and where is it located?

Estimated Rescue Time:

Notification time: _____

Response time: _____

Setup time: _____

Rescue/lowering time: _____

TOTAL estimated rescue time: _____

Designated Rescue Team Members (this shift):

Name	Role	Training Current?	Contact Method

Emergency Services Phone Number: _____

EMS Access Route / Staging Area: _____

Environmental Hazards Affecting Rescue:

Prepared By (Signature): _____

Date: _____

Reviewed By (Supervisor): _____

Date: _____

Appendix B: Rescue Drill Documentation Form

FALL RESCUE DRILL RECORD

Date of Drill: _____

Job Site / Location: _____

Drill Coordinator: _____

Scenario Description: _____

Drill Participants:

Name	Role in Drill	Training Date	Certification Current?

Drill Timeline:

Fall event simulated (start time): _____

Rescue team alerted (time): _____

Rescue team arrived at rescue equipment (time): _____

Equipment deployed / rescue initiated (time): _____

Worker reached by rescuer (time): _____

Worker lowered to safe surface (time): _____

TOTAL RESCUE TIME: _____

Was the target rescue time (<15 minutes) achieved? ☐ Yes ☐ No

Rescue Equipment Used:

Problems Encountered:

Corrective Actions Required:

Follow-Up Drill Required? ☐ Yes ☐ No If yes, date: _____

Drill Coordinator Signature: _____

Date: _____

Safety Manager Review: _____

Date: _____

FALL PROTECTION

29 CFR 1926.501-503

Presenter: _____

Date: _____

FORBES SAFETY SOLUTIONS

TOOLBOX TALK

WHY THIS MATTERS

- Falls are the #1 killer in construction. In 2024, falls to a lower level caused 370 fatalities among construction and extraction workers — over a third of all construction deaths (BLS CFOI 2024).
- Fall Protection has been OSHA's most cited violation for 15 consecutive years, with over 7,000 citations issued in FY 2024 alone.
- The average fall fatality happens from just 6 to 10 feet. You don't need to be on a high-rise to die.
- Most fall deaths are 100% preventable. The equipment exists. The standards are clear. The gap is compliance.
- A single fall fatality can result in OSHA penalties exceeding \$150,000, criminal referrals, and project shutdowns.

Source: [OSHA Fall Prevention Campaign](#)

FORBES SAFETY SOLUTIONS

100% TIE-OFF & ANCHORAGE POINTS

- 100% tie-off means you are connected at ALL times when at 6 feet or above — no exceptions for "just a second" or "I'm almost done."
- Anchorage points must support 5,000 lbs per worker or be designed by a qualified person as part of a complete PFAS with a safety factor of 2.
- Never tie off to conduit, vents, antenna mounts, or anything you haven't verified. If you wouldn't hang your truck from it, don't hang yourself from it.
- When moving between anchorage points, use a dual-lanyard system so one hook is always connected before the other releases.
- Guardrails are the first line of defense — they protect without any action from the worker. Use them wherever feasible before defaulting to personal fall arrest.

HARNESS INSPECTION & RESCUE PLANNING

- Inspect harnesses before every use with the ABC method: A = Anchors/D-rings (centered between shoulder blades), B = Buckles/Belts (no fraying, all buckles lock), C = Connections/Straps (no cuts, burns, chemical damage).
- Any harness involved in a fall arrest event must be immediately removed from service and destroyed — no exceptions, even if it "looks fine."
- Rescue planning is not optional. OSHA requires a rescue plan BEFORE anyone goes to height. "Call 911" is not a rescue plan — suspension trauma can kill in under 30 minutes.
- Every crew working at height must have a rescue method available: self-rescue training, rescue team on standby, or mechanical retrieval equipment.
- Never modify, paint, or attach unauthorized items to fall protection equipment. If the manufacturer didn't put it there, it doesn't belong.

DISCUSSION QUESTIONS

Take 5 minutes to discuss with your crew:

1. Where on this jobsite are we most exposed to fall hazards today? Are all those areas controlled?
2. When was the last time you actually inspected your harness — and what would you look for?
3. If someone on your crew went into suspension right now, what's our plan to get them down in under 6 minutes?
4. Have you ever seen someone skip their tie-off "just for a second"? What would you say to them?

ATTENDANCE SIGN-OFF

Date: _____ Topic: Fall Protection Presenter: _____

#	PRINT NAME	COMPANY	SIGNATURE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Personal Fall Arrest System (PFAS) Inspection

Pre-Use Inspection Requirements for Harnesses, Lanyards & SRLs
Ref: 29 CFR 1926.502(d), ANSI Z359.11

Why PFAS Inspection Matters

395

Fatal falls in construction in a recent year — many involving failed or uninspected fall protection

100%

PFAS must be inspected before EVERY use — no exceptions

1 Fall

After a single fall arrest event, the entire PFAS must be removed from service permanently

Inspecting Your Harness

- Check all webbing for cuts, frays, burns, chemical damage, abrasion, and pulled stitching — run the webbing through your hands inch by inch
- Inspect D-rings (dorsal, sternal, side): look for cracks, distortion, corrosion, sharp edges, and proper movement
- Examine all buckles: ensure they lock and release properly, check for deformation, corrosion, and missing components
- Verify labels are legible: manufacturer, model, date of manufacture, and standards compliance (ANSI Z359.11) must be readable
- Check grommets and hardware attachment points for looseness, corrosion, or damage
- Inspect all stitching — especially load-bearing bar-tack stitching — for broken threads, pulled seams, or UV degradation

Inspecting Lanyards & Self-Retracting Lifelines

- Lanyards: check webbing or cable for cuts, kinks, frays, burns, abrasion, and corrosion along the entire length
- Snap hooks: verify the gate locks properly, the keeper spring returns fully, and there is no corrosion or distortion
- Shock absorber pack: inspect the outer cover for tears or deployment indicators — if the pack shows signs of activation, remove from service
- Self-Retracting Lifelines (SRLs): extend and retract the line fully — it should retract smoothly without sticking or jerking
- Check the SRL housing for cracks, dents, and corrosion — inspect the mounting bracket and swivel for damage
- Verify the SRL label: check manufacture date, inspection date, and that annual competent-person inspection is current

Removal from Service, Storage & Documentation

- Remove from service IMMEDIATELY after any fall arrest event — the harness, lanyard, and all connectors must be destroyed or returned to manufacturer
- Remove from service if you find any visible damage: cuts, frays, deformation, corrosion, label illegibility, or broken stitching
- Remove expired equipment per manufacturer guidelines — do not exceed the recommended service life
- Store PFAS in a clean, dry, cool area away from chemicals, UV light, moisture, and sharp objects
- Never hang equipment on nails or sharp hooks — use wide hangers or storage bags
- Document every inspection: date, inspector name, equipment serial number, condition, and pass/fail determination

Knowledge Check

Q1: How often must a personal fall arrest system be inspected?

A: Before every use — a pre-use inspection is required each time the equipment is put on.

Q2: What must happen to a harness and lanyard after they arrest a fall?

A: They must be immediately removed from service — the entire system must be destroyed or returned to the manufacturer.

Q3: Name three things to check when inspecting a harness.

A: Webbing for cuts/frays, D-rings for cracks/distortion, and buckles for proper locking — plus legible labels and intact stitching.

PFAS Inspection — Sign-Off Sheet

By signing below, I confirm I attended this Toolbox Talk and understand the material presented.

#	Print Name	Signature	Date
1			
2			
3			
4			
5			
6			
7			
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9			
10			