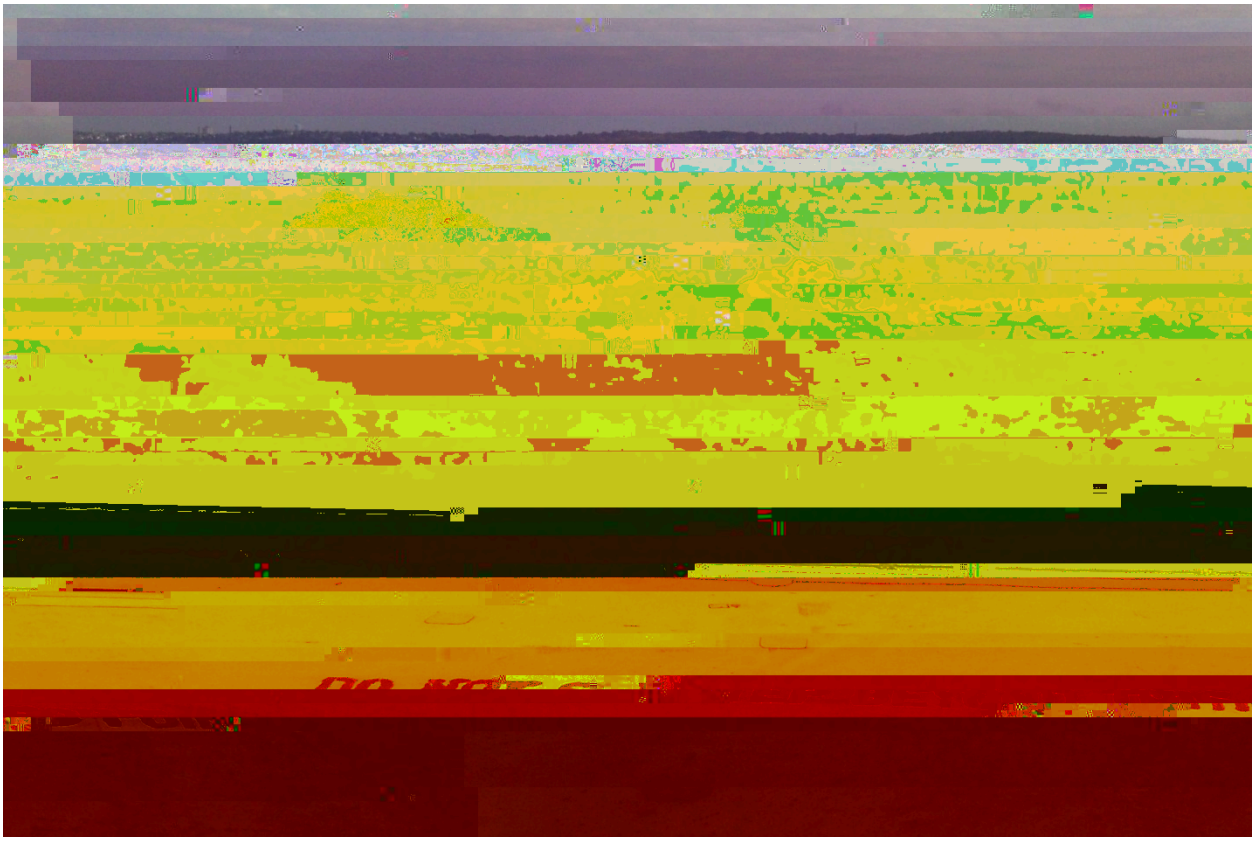
Roger Williams University
Fall Protection Policy



Roger Williams University
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One Old Ferry Road
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ROGER WILLIAMS UNIVERSITY
FALL PROTECTION POLICY

I. Introduction

Fall protection is defined as any means used to protect workers from falls when working in areas where fall hazards exist. Fall protection involves the elimination of fall hazards, the prevention of falls, and the control of falls. Fall protection is required whenever there is a
of more than four feet (a drop of four feet or more to the ground or the next level).

The Occupational Safety and Health Administration (OSHA) has many standards related to fall protection, including: 29 CFR 1910.27 (Fixed Ladders), 29 CFR 1910.26 (Portable Ladders), 29 CFR 1910.25 (Portable Wood Ladders), ANSI A14.3-1956 (Safety Code for Fixed Ladders), 29 CFR 1910.66 (Powered Platforms), 29 CFR 1910.67 (Vehicle-Mounted Elevated and Rotating Work Platforms), 29 CFR 1910.23 (Guarding Floor and Wall Openings and Holes), 29 CFR 1910.128-.131 (Fall Arrest Systems), and the General Duty Clause (Section 5(a)(1), OSH Act).

Roger Williams University (RWU) departments are primarily responsible for compliance with, and safe implementation of, all RWU safety programs. RWU EHS is available to assist with compliance and provide policy clarification as necessary.

II. Fall Protection Guidelines and Program Scope

Fall protection begins with identifying a fall hazard. The following are examples of fall hazards which are covered by this policy:

- Elevated walking / working surfaces four feet or more above a lower level
- Skylights and smoke domes that workers could step into or fall through
- Wall openings such as those for windows or doors that workers could fall through
- Trenches and other excavations that are not readily seen and workers could fall into
- Walking / working surfaces from which workers could fall onto dangerous equipment
- Hoist areas where guardrails have been removed to receive materials
- Sides and edges of walking / working surfaces such as established floors, mezzanines, balconies, and walkways that are four feet or more above a lower level and not protected by guardrails at least 39 inches high
- Ramps and runways that are not protected by guardrails at least 39 inches high
- Leading edges — edges of floors, roofs, and decks — that change location as additional sections are added
- The leading edges of loading docks, which are not protected with guardrails
- Wells, pits, or shafts not protected with guardrails, fences, barricades, or covers
- Holes in walking/working surfaces that they could step into or fall through

When a fall hazard has been identified, the following steps should be followed in deciding the proper fall protection:

- Step 1: Can the hazard be eliminated by using engineering control? (relocate to ground level, utilize a contractor with expertise in extremely hazardous areas, etc.)
- Step 2: If the hazard cannot be eliminated, can the possibility of a fall be eliminated be creating a fall prevention system? (guardrails made from steel, wood, or wire rope which comply with OSHA standards, etc.)

A personal fall arrest system (i.e., a harness and lanyard) must be used only when all possibilities of using Step 1 or 2 options have been exhausted.

III. Roof Safety
RWU authorizes the following departments to access and perform work on campus roofs:

- Capital Projects
- Environmental Health & Safety
- Facilities Management
- Public Safety

In addition, third-party service/maintenance contractors (e.g. HVAC, electrical, roofing, etc.) may access and perform work on campus roofs if accompanied by an employee from one of the above-referenced departments. In addition, such third-party contractors may access and perform work on campus roofs without an RWU employee present in the discretion of a supervisory employee of one of the above-referenced departments. In such instances, the authorizing department should properly orient the third-party contractor to proper safety and risk issues associated with the roof being accessed.

All others (including, but not limited to, employees from other departments, faculty, students, student employees, etc.) may not access campus roofs without prior written authorization. A request for roof access form is attached hereto as Exhibit A.

Do not approach within six feet of any:

- **Roof edge**, unless protected by guardrails (See "Guardrail Requirement" section of this plan);

  Exception: For intermittent work (less than four times per year), an approved personal fall arrest system may be used in lieu of guardrails (see "Personal Fall Arrest System Requirements" section of this plan).
- **Access hatch**, unless protected by hinged or removable cover, or removable railings; or
- **Skylight,** unless protected by skylight screens or covers, guardrails, or if employee is wearing a personal fall arrest system.

Protect the area below the elevated work height:

- When working close to the roof's edge, cordon off the area below to protect pedestrians from falling debris.
- Prevent materials from falling from exposed edges of fixed heights (roof, floor opening, wall opening, platform, runway or ramp) by erecting toeboards (vertical barriers erected at floor level and extending at least four inches in height).

Do not access the roofs of the following buildings without notifying and seeking clearance from the Department of Public Safety (x3333) and the Department of Environmental Health and Safety (x):

- Marine and Natural Science (MNS)

  Hazard working near HVAC vents on the roof locations due to fume hoods releasing chemical fumes in exhaust
- Cedar Hall

RF (Radio Frequency) Safety and hearing protection hazards related to working next to Cooper Mass Notification (ESWS; Emergency Siren Warning System) speakers if activated (hearing protection is located at the roof access door)

- Recreation Center
  RF Safety and hearing protection hazards related to working next to Cooper Mass Notification (ESWS; Emergency Siren Warning System) speakers if activated (hearing protection is located at the roof access door)
- Bayside 200 Building
  RF Safety and hearing protection hazards related to working next to Cooper Mass Notification (ESWS; Emergency Siren Warning System) speakers if activated
- Maple Hall
  RF Safety hazard related to working next to WQRI Radio broadcast tower
- North Campus Dorm
  RF Safety hazard related to working next to Cox Communications broadcast tower

IV. Ladder Safety

Rules for Using all Ladders (Fixed and Portable)

- Do not use non-ladder objects (buckets, tables, chairs, etc.) in place of a ladder.
- Follow all manufacturer guidelines and all warnings and instructions on the ladder.
- Do not load ladders beyond their maximum intended load nor beyond their manufacturer's rated capacity.
- Use ladders only for their designated purpose.
- Use ladders only on stable and level surfaces unless secured to prevent accidental movement.
- Keep areas clear around the top and bottom of ladders.
- Secure ladders placed in areas such as passageways, doorways, or driveways, or where they can be displaced by workplace activities or traffic to prevent accidental movement. Or use a barricade to keep traffic or activity away from the ladder.
- Do not move, shift, or extend ladders while in use.
- Face the ladder when moving up or down.
- Use at least one hand to grasp the ladder when climbing.
- Do not carry objects or loads that could cause loss of balance or falling.
- Ladders must not be tied or fastened together to create longer sections unless they are specifically designed for such use.

Defective Ladders (Fixed and Portable)

Ladders having defects are to be marked or labeled as defective and taken out of service until repaired by either Facilities Management or the manufacturer.

Rules Specific to Portable Ladders (Step, Straight, and Extension Ladders)

Location Restrictions

All portable ladders (step, straight, and extension) have the following location restrictions:

- Ladders may not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded;

- Do not use ladders on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental movement;
- Ladders may not be placed on boxes, barrels, or other unstable bases to obtain additional height; and
- No ladder may be used to gain access to a roof unless the top of the ladder extends at least 3 feet above the point of support, at eave, gutter, or roofline.

Prohibitions of Use

- Portable ladders must not be tied or fastened together to provide longer sections.
- Portable ladders must be equipped with the hardware fittings necessary if the manufacturer endorses extended uses.
- Do not use portable ladders as a brace, skid, guy, or gin pole, gangway, or for other uses then that for which they were intended, unless specifically recommended for use by the manufacturer.

Length Allowances for Portable Ladders

- Do not use portable ladders that exceed the heights listed in this table:

- Extension ladders must be equipped with positive stops which will insure the overlap specified in the table above.
- Based on the nominal length of the ladder, each section of a multi-section ladder must overlap the adjacent section by at least the number of feet stated in this table:

Normal length of ladder (in feet)	**Rung Overlap (in feet)**
Up to and including 36 …….	
Over 36, up to and including 48……	
Over 48, up to 60 ……..1	

Third-parties are prohibited from using an RWU lift without an RWU employee accompanying the third-party in the lift unless such is approved in advance and in writing by RWU's Office of General Counsel (a fully signed "Agreement for Use of Equipment" will be required).

VI. Guardrail Requirements

Before using a guardrail system, check if the hazard be eliminated by using engineering control (relocate to ground level, or utilize a contractor with expertise in extremely hazardous areas, etc.).

If guardrails are used, they must meet these requirements:

- A standard railing shall consist of top rail, intermediate rail, and post, and shall have a vertical height of 42 inches nominal from upper surface of top rail to floor.
- The complete structure shall be capable of withstanding a load of at least 200 pounds applied in any direction at any point on the top rail.
- Construction requirements vary by construction type:

Wood	Posts at least 2 inches x 4 inches, and posts less than 6 feet apart
Pipe	Railings at least 1 ! inches in nominal diameter, and posts spaced not more than 8 feet on centers
Structural Steel	Posts and top and intermediate rails 2 inches x 2 inches by 3/8 inch angles, and posts spaced not more than 8 feet on centers

Guardrails are required to be inspected on the following schedule:

- Temporary systems – Daily: A visual inspection will be completed by a competent person. OSHA defines a "Competent Person" as one who is capable of identifying hazardous and dangerous conditions.
- Temporary systems – Weekly: A complete structural inspection will be completed by a competent person.
- Permanent Systems – Annual: A structural inspection will be completed by a competent person, with future frequency of inspection defined based on conditions/controls present.

VII. Loading Dock Safety

Loading docks pose potential fall hazards because they are often elevated at a height of 4 feet or greater than the pavement below, and the leading edge of the loading dock has to be open-access (no guardrails) to allow materials to be on- and off-loaded.

RWU has one loading dock on campus. It is located at the Dining Commons building on the east side of the building. There are two thirty-yard trash compactors permanently stationed at either end of the dock, and three open bays for receiving materials. The loading dock is concrete and has one hydraulic dock leveler (metal plate used to span the gap between the dock and the truck) located at the center bay. The other bays do not have dock levelers. The dock's non-leading edges have structural steel guardrails which are installed and maintained in accordance with OSHA requirements (see "Guardrail Requirements" section of this policy).

RWU will provide loading dock safety training to all employees that routinely work on the loading dock, specifically: Dining Commons, Public Safety, Facilities Management, and Environmental Health and Safety. Training topics will include: proper use of the dock leveler,

situational awareness, safe materials handling (including pallet jack and hand truck / dolly usage), and inclement weather safety (ice, snow, rain, etc.).

In general, employees working on loading docks should observe these basic safety principles:

- Use the dock leveler when loading and off-loading materials from / to a truck and the loading dock.
- Immediately report all unsafe loading dock conditions to supervisor or Facilities Management (cracks or breaks in the concrete, ice or snow on the loading dock surface, insects such as bees at the trash compactors, etc.).
- When traveling back and forth across the loading dock, stay at least six feet away from the dock's leading edge.
- Stay in the center of the dock leveler when on- and off-loading materials between a truck and the loading dock. Always enter and exit the back of the truck at a 90-degree angle to the loading dock's leading edge.
- Follow the safe usage requirements when using pallet jacks and hand trucks / dollies. Do not walk along the leading edge of the loading dock while using this equipment. Push the equipment and load straight off the truck and continue moving straight back until the load is at least six feet back from the leading edge, then move in the desired direction.
- Do not store items on the loading dock. Keep the loading dock clear so there is plenty of room to safely work away from the leading edge, and to move materials as necessary.
- Maintain the loading dock in a clean and clutter-free manner to prevent slip/trip/fall hazards.
- Be aware of other people working and walking on the loading dock.

VIII. Personal Fall Arrest Systems Requirements

When a fall hazard has been identified, the following steps should be followed in deciding the proper fall protection:

- Step 1: Can the hazard be eliminated by using engineering control? (i.e., relocate to ground level, or utilize a contractor with expertise in extremely hazardous areas)
- Step 2: If the hazard cannot be eliminated, can the possibility of a fall be eliminated be creating a fall prevention system? (i.e., guardrails made from steel, wood, or wire rope which comply with OSHA standards)

Example of the type of personal fall arrest system employed at RWU

Personal fall arrest systems stop a worker's fall from a height, and can include the following components: a full body harness, lanyard, rope grabs, lifelines, anchorage points, and rigging. RWU personal fall arrest systems include a harness and lanyard. Personal fall arrest systems and components are used only for employee fall protection, and are rigged such that an employee can neither free fall more than six feet nor contact any lower level.

Inspection Requirements

Prior to each use, personal fall arrest systems shall be inspected for mildew, wear, damage and other deterioration, and defective components removed from service if strength or function may be adversely affected.

Lifelines are required to be inspected annually by a competent person, and the documentation must be maintained on file. OSHA defines a "Competent Person" as one who is capable of identifying hazardous and dangerous conditions in the personal fall arrest system or any component thereof, as well as in their application and use with related equipment. RWU will contract RSC Rentals to perform and document the annual inspections.

Storage and Maintenance of Personal Fall Arrest System Equipment

- Never store the personal fall arrest system

- Never dry using heat or sun exposure or use strong detergents in cleaning.
- Never store equipment near excessive heat, chemicals, moisture, or sunlight.
- Never store in an area with exposures to fumes or corrosives elements.
- Avoid dirt and build-up on equipment.
- Never use this equipment for any purpose other than personal fall arrest.
- Remove equipment from service immediately once it's been exposed to a fall.

Usage Requirements

- Unless of a locking type designed for the following connections, snap-hooks must not be engaged:
  - Directly to webbing, rope or rope wire;
  - To each other;
  - To a dee-ring to which another snap hook or other connector is attached;
  - To a horizontal lifeline; or
  - To any object which is incompatibly shaped or dimensioned in relation to the snap-hook such that unintentional disengagement could occur by the connected object being able to depress the snap-hook keeper and release itself.
- Devices used to connect to a horizontal lifeline which may become a vertical lifeline must be capable of locking in either direction on the lifeline.
- Personal fall arrest systems must be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level or the ground (which may be closer than 6 feet).
- Personal fall arrest systems must be worn with the attachment point of the body belt located in the center of the wearer's back, and the attachment point of the body harness located in the center of the wearer's back near shoulder level, or above the wearer's back.
- When vertical lifelines are used, each employee must be provided with a separate lifeline.
- Inspect all lifelines before each use for structural integrity of line and anchors.
- Lifelines must be protected against being cut or abraded.
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impact of the energy of an employee free fall a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.

- Connector shall be drop forged, pressed, or formed steel, or made of equivalent material, and have a corrosion-

The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used; and
1926.503(a)(2)(iii)

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