SUNY OSWEGO FACILITY SERVICES
ENVIRONMENTAL HEALTH AND SAFETY

Working At Heights

<table>
<thead>
<tr>
<th>Procedure Number</th>
<th>Revision Number</th>
<th>Effective Date</th>
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<tbody>
<tr>
<td>EHS-WFH-O&amp;M</td>
<td>0</td>
<td>November 1, 2019</td>
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</tbody>
</table>

Approval Signature
J. Mitchell Fields
AVP – Facilities Services

Approval Date
10.29.2019

1. **PURPOSE**

SUNY Oswego is committed to the health and safety of the entire campus community (employees, students, visitors and sub-contractors). The purpose of this Policy is to eliminate exposure to fall hazards. Provide for the safety of all who employees and sub-contractors may need to work at heights ether interior and exterior, roof, portable extension ladders, stepladders, permanent/fixed ladders, lifts and ladders.

2. **SCOPE**

All employees and sub-contractors who will be working at heights making inspections, alterations, repair, demolition on buildings. Working at height carries inherent hazards. Risks need to be properly assessed and work carefully planned, even at relatively low elevations. **It is expected that all personnel working at height will take the proper precautions necessary to eliminate any injury or fall.**

3. **DEFINITIONS**

Working at Heights
A place is ‘at height’ if a person could be injured falling from it, even if it is at or below ground level. Working at heights (threshold height) of 4 feet or higher above the ground or next level. OSHA requires that fall protection be provided at elevations of 6 feet in general industry workplaces, 6 feet in the construction industry and scaffolding is required at 10 feet.
Guardian System
A Horizontal Lifeline System, Anchor point, guardrail and fall protection system.

Low-Slope Roofs: Less or equal to 4/12
1) When work is performed less than 6 feet from the roof edge, a travel restraint system (Fall Protection) Shall be used.

2) When work is performed at 6 feet but less than 15 feet from the roof edge, a travel restraint system (Fall Protection) Shall be used, but the area between 6 and 15 foot maybe classify as a designated area when performing work that is both infrequent* and temporary**.

3) A) When work is performed 15 feet or more from the roof edge, a travel restraint system (Fall Protection) should be used but the area 15 foot or greater around the edge maybe classify as a designated area when performing work that is both infrequent* and temporary**.
   B) All personnel are prohibited from going within 15 feet of the roof edge without using fall protection in accordance with paragraphs above.
   (1910.28(b)(13)(iii)(b))

*Infrequent: Regular maintenance that is performed no more than once/month, or work that is performed sporadically as needed (equipment breakdown).

**Temporary: Simple, short-term tasks that generally last less than 1 hours.

High-Sloped Roof: Greater than 4/12
Each person on a steep roof with unprotected sides and edges 6 feet or more above lower levels shall be protected from falling by guardrail systems with toeboards, safety net systems, or personal fall arrest systems.

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 to protect employees in the area. Note: Exchange body belt to body harness.

Consist of ropes, wires, or chains, and supporting stanchions erected 15' or more from the edge. Shall be flagged at not more than 6-foot intervals with high-visibility material. The lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches.

The stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface. The Line shall have a minimum tensile strength of 500 pounds, and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions as prescribed in paragraph above.
4. **REGULATORY REQUIREMENTS**

This Program has been developed to comply with the requirements of the Occupational Safety and Health Administration (OSHA) for General Industry (29 CFR 1910) and Construction (29 CFR 1926)

5. **RESPONSIBILITIES**

The EHS Department is responsible for the development, implementation and administration of the Universities Working at Height Program. Providing training and technical guidance, where required.

All employees and sub-contractors shall have responsibility for their own training health and safety and that of others who may be affected by their actions. They will inspect their equipment and PPE before using it. They shall adhere to the most restrictive program; be it OSHA/PESH, their company’s or campus requirements.

Assistance Director(s) ensure adequate equipment and resources are available to implement this policy and do the work safely. Ensure preventative maintenance/inspection is performed for fall protection system components in accordance with manufacturers’ recommendations or as determined in consultation with the EHS Department.

Project Managers ensure contractors are knowledgeable on the contents of this and all campus policies. Hold contractors accountable for adhering to the requirements of this and all campus policies.

All personnel will use safe work practices; planning work, eliminating Hazards, complete a Working At heights plan that includes a rescues plan, use fall protection equipment properly and always wear provided safety equipment and PPE.

6. **PROCEDURES/IMPLEMENTATION**

The campus must conducted comprehensive surveys, inspections at heights and repair buildings roofs and other areas of height both inside and outside.

OSHA identifies areas or activities where fall protection is needed. These include: ramps, runways and other walkways; excavations; hoist areas; holes; formwork and reinforcing steel; leading edge work; unprotected sides and edges; overhand bricklaying and related work; roofing work; precast concrete erection; wall openings; residential construction; and other walking/working surfaces.
tested to function together in preventing a fall from occurring or to minimize the potential for compounding injury.

2. You’ve identified all hazards, establish a plan together that will eliminate those hazards or control the hazards.

3. Communicate your plan to all workers, properly communicate your hazard control plan to workers—both employed and contracted for the job site.

4. Calculate the Total Fall Distance
   Confirm that the fall distance has been calculated properly and account for nearby obstacles or obstructions that could pose a swing or fall hazard.

5. Select the Appropriate Fall Protection Equipment
   Select the appropriate personal fall protection equipment for your workers—harnesses, retractable devices, shock absorbing lanyards, Guardian system, etc.

6. Inspect your fall protection equipment and anchors before use.
   You should abide by the manufacturer's specifications for use, inspection, maintenance, and storage for all personal fall protection equipment.

7. Double-Check Anchor Points
   Ensure that all anchor points are rated and or can hold at least 5,000 lbs. per worker attached.

B. GENERAL REQUIREMENTS FOR ALL LADDERS
   • Ladders must be maintained in a good condition.
   • Prior to use, employees shall visually inspect the ladder and its components for damage and defects.
   • Damaged or defective ladders shall be removed from service.
   • Do not modify or repair without manufacturer's approval and parts.
   • Ladders capacity/duty rating shall be clearly marked and observed by its user.
   • Always account for your fully clothed weight plus the weight of any tools and materials that are carried onto the ladder.
   • Type III ladders (Capacity limit 200lb) are prohibited from use. Only use Type II or I
   • Always use fiberglass (non-conductive) ladder, no wooden ladder allowed after Jan. 1, 2020.

WHAT IS THE RIGHT HEIGHT?
   • The highest permitted standing level is two steps down from the top.
   • A person’s maximum safe reaching height is approximately 4’ higher than the height of the ladder.
7. **TRAINING**

Authorized Person will receive fall protection training yearly.

Competent Person will receive 16 hours of training to be a competent person and recertify every two years, they will have fall protection yearly. The Competent person will also inspect the guardian systems twice a year, fall and spring.

Retraining must be conducted:

- When changes in the workplace render previous training obsolete;
- When changes in the types of fall protection systems or equipment to be used render previous training obsolete; or
- When inadequacies in an affected worker's knowledge or use of fall protection systems or equipment indicates that the worker has not retained the requisite understanding or skill.

8. **RECORD KEEPING**

All documentation records are kept in EHS Office.

9. **REFERENCES**

N/A

10. **APPENDICIES/FORMS**

Fall Protection Work Plan
Guardian System Inspection Form For System Recertification
Fall Equipment Inspection Form
Harness
Anchorage Connectors
Lanyard
Self-Retracting Devices
Vertical Lifelines
Fall Protection Work Plan

Fall Protection is required at 4 feet; however, a written plan is required at or above 6 feet

<table>
<thead>
<tr>
<th>Department</th>
<th>Site Location</th>
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<tr>
<th>Job Task</th>
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<tr>
<th>Job Location/Description</th>
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Plan prepared by | Date 

> Workers must review and sign this fall protection work plan prior to starting work. Workers must understand this plan and be trained in fall protection and the systems and equipment that will be used.

> This Fall Protection Work Plan must be posted at the worksite for the duration of work activities.

### 1. Identify potential fall hazards (check all that apply)

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

### 2. Describe the fall hazard(s) details


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

- [ ] Guardrail system
- [ ] Covers (holes and openings)
- [ ] Appropriate anchors for systems used
- [ ] Personal fall arrest system
- [ ] Personal fall restraint system
- [ ] Positioning device system
- [ ] Scaffold with guardrail
- [ ] Scissor lift
- [ ] Aerial lift
- [ ] Horizontal lifeline
- [ ] Vertical lifeline and rope grab
- [ ] Warning line
- [ ] Safety monitor
- [ ] Safety watch
- [ ] Other:

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


Rev. Oct. 2019
13. Inspection Checklist

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

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

<table>
<thead>
<tr>
<th>Name (print)</th>
<th>Signature</th>
<th>Date</th>
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Name/title of Competent Person who provided training under this plan

15. Work plan approval(s)

<table>
<thead>
<tr>
<th>Name of lead worker or supervisor</th>
<th>Signature</th>
<th>Date</th>
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Name of Competent Person (If engineered system: Name of Qualified Person)

If administrative controls: Name of department manager
**INSPECTION FORM**

**ANCHORAGE CONNECTORS**

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<tr>
<th>Manufacturer:</th>
<th>Anchor Material:</th>
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<tbody>
<tr>
<td>Model #:</td>
<td>User/Department:</td>
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<tr>
<td>Description:</td>
<td>Name of Inspector:</td>
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<tr>
<td>Serial #:</td>
<td>Signature:</td>
</tr>
<tr>
<td>Lot #:</td>
<td>Date of Inspection:</td>
</tr>
<tr>
<td>Date of Manufacture:</td>
<td>In-Service Date:</td>
</tr>
</tbody>
</table>

**LABELS & MARKINGS**

- Label (Intact & Legible)
- Appropriate ANSI/OSHA/CSA Markings
- Inspections are Current / Up-to-Date
- Date of First Use

**HARDWARE (IF APPLICABLE)**

- Signs of Deformity
- D-Ring / Connection Points
- Hook Gate / Rivets (if applicable)
- Corrosion / Pitting / Nicks

**ANCHORAGE CONNECTOR**

- Termination (Stitch, Splice, or Swage)
- Deterioration / Corrosion
- Cuts / Burns / Holes
- Integrity of Welds / Rivets
- Paint Contamination
- Stitching / Wire Condition
- Heat Corrosion / UV Damage
- Separation / Bird-Caging

**NOTES**

This inspection form will be used at least annually. After the inspection the user/department will keep a copy and send the original to the EHS department.
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**INSPECTION FORM**

**VERTICAL LIFELINES**

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<tr>
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<tbody>
<tr>
<td></td>
<td>CABLE</td>
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<tr>
<td>Model #:</td>
<td>BLUE POLY STEEL ROPE</td>
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<td>Description:</td>
<td>WHITE POLYAC ROPE</td>
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<td>Serial #:</td>
<td>KERNIMANTLE ROPE</td>
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<td>DIAMETER:</td>
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**Date of Manufacture:**

**User/Department:**

**Name of Inspector:**

**Signature:**

**Date of Inspection:**

**In-Service Date:**

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**LABELS & MARKINGS**

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<thead>
<tr>
<th>Description</th>
<th>PASS</th>
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<tbody>
<tr>
<td>Label (Intact &amp; Legible)</td>
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<tr>
<td>Appropriate ANSI/OSHA/CSA Markings</td>
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**HARDWARE**

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<th>Description</th>
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<tbody>
<tr>
<td>Connector (Self-Closing &amp; Locking)</td>
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<tr>
<td>Hook Gate / Rivets</td>
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<tr>
<td>Corrosion</td>
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<tr>
<td>Pitting / Nicks</td>
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**MATERIAL (ROPE OR CABLE)**

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<td>Broken / Missing / Loose Stitching</td>
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<td>Termination (Stitch, Splice, or Swage)</td>
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<tr>
<td>Excessive Wear (Fraying or Broken Strands)</td>
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<td>Cuts / Burns / Holes</td>
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<tr>
<td>Kinks</td>
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<tr>
<td>Separation / Bird-Caging</td>
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**SHOCK PACK (IF PRESENT)**

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<tr>
<td>Cover / Shrink Tube (Don't Cut or Remove)</td>
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<tr>
<td>Damage / Fraying / Broken Stitching</td>
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<tr>
<td>Impact Indicator (Signs of Deployment)</td>
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**ROPE GRAB (IF PRESENT)**

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<tbody>
<tr>
<td>Locks on lifeline automatically</td>
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<td></td>
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<tr>
<td>moves freely when disengaged</td>
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<tr>
<td>No visible damage, rust or corrosion</td>
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