

12. Fall Protection

When City of Mercer Island employees are exposed to a hazard of falling while working, the City shall ensure that fall restraint systems, fall arrest systems, or positioning device systems are provided. Employees will not perform any duties which require the employee to be exposed to an unprotected edge, platform, walkway, or utilize elevated equipment unless the employee is properly secured from falling.

Additionally, this program shall apply to all employees to minimize slips, trips, and falls on the same elevation. All employees shall control fall hazards in their work area by maintaining good housekeeping and shall report conditions that may lead to slips, trips and falls to the appropriate maintenance unit.

Contractors and subcontractors working on City projects are required to comply with all applicable WISHA workplace safety regulations and shall provide their own fall protection program and plan. Contractor's safety programs shall be available for review upon request by City representatives.

Fall Incident Response

Staff performing work duties on elevated surfaces 10 feet or more in height are required to work in pairs to support a timely rescue response. In the event of a fall involving a staff member's fall arrest system, the following steps must be taken:

- An able staff member must call 911 to initiate rescue services if needed.
- Any staff member who sustains injury as the result of a fall must seek immediate medical attention.
- An Injury/Illness form (found on MI Hub) must be completed and submitted to Human Resources within 48 hours of the fall.

Responsibilities

Directors are responsible for:

- General oversight of the program
- Ensuring that all requirements listed in the written program for fall protection are met
- Arranging for required training of employees in fall protection

Supervisors are responsible for:

- Identifying elevated work areas
- Ensuring new and existing employees receive fall protection training as applicable to their job duties
- Conducting periodic visits to work locations to observe employees' procedures while working at elevated levels
- Evaluating other elevated work locations identified by staff for fall protection requirements
- Requiring the inspection of all fall protection equipment
- Surveying work areas for Low/no height hazards and addressing any significant risk

Employees whose duties involve work activities at elevated locations are required to comply with the rules established in this program, all training provided by the city, and the manufacturers' guidelines for any equipment used.

Fall Protection Coverage

The following work situations are covered by the City's fall protection program:

- **Ladders:** fixed, free standing, temporary, or roll away type
- **Elevating personal platforms:** bucket trucks, scissors lifts, and other aerial work platforms (fall protection shall be worn and in place at all times, including prior to elevating the platform or equipment)
- **Elevated surfaces:** sloped roofs, flat roofs, staircases, catwalks, skylights, boilers, chillers, etc.
- **Vertical opening:** ground level entry into vaults, excavations, trenches, holes, pits, vessels, and other confined spaces
- **Low/No height hazards:** Trip or impalement hazards such as shallow holes, broken steps, exposed rebar, or rod

The following work situations are excluded from the City's fall protection program, and City employees are prohibited from entering and working in these areas without a task specific director-approved work program conforming to WAC 296-880-20005:

- Any work within 15' of the edge of a low slope roof (less than a 4:12 slope)
- Any work while positioned on a high slope roof (greater than 4:12 slope)
- Any work while position forklift "picker" mounted to a forklift carriage, or positioned on any equipment not intended to provide an elevated work area
- Any work washing windows or other similar task when elevated from the ground more that 4 feet
- Any work on scaffold or other temporary structures
- Any work on, or involved with, any crane

The City of Mercer Island relies on two distinct systems to protect employees from fall risks. Fall restraint equipment prevents falls from occurring, while fall arrest equipment stops a fall that is already in progress. Both systems constitute fall protection.

Fall protection is required whenever work is performed in an area 10 feet or above its surroundings and can generally be provided through the use of fall protection systems including:

- **Guardrails:** Standard guardrails consist of a top rail, located 42 inches above the floor, and a mid-rail. Screens and mesh may be used to replace the mid-rail, so long as they extend from the top rail to the floor.
- **Personal fall arresting systems:** Components of a personal fall arresting system include a body harness, lanyard, lifeline, connector, and an anchorage point capable of supporting at least 5,000 pounds.
- **Positioning device systems:** Positioning device systems consist of a body belt or harness rigged to allow work on a vertical surface, such as a wall, with both hands free.
- **Warning line systems:** Warning line systems are made up of lines or ropes installed around a work area on an elevated surface. These act as a visual warning to those working on the elevated surface of their proximity to the edge.
- **Covers:** Covers are fastened over holes in the working surface to prevent falls. Where it can be clearly demonstrated that the use of these systems is infeasible or creates a greater hazard, alternative fall protection measures may be implemented.

Specifications for each type of fall protection are included in WAC 296-880-400

Fall Protection Exemption

The following work tasks are exempt from fall protection as authorized by WAC 296-880-20010:

- During initial installation of the fall protection anchor prior to engaging in any work activity, or the disassembly of the fall protection anchor after all work activities have been completed.
- When employees are inspecting, investigating, or assessing roof level conditions or work to be performed only on low pitch roofs prior to the start of any work activity or after all work activities have been completed.

These exemptions do not apply on steep pitch roofs, where construction work is underway, or when fall protection systems or equipment meeting the requirements of this chapter have been installed and are available for workers to use for pre-work and post-work inspections, investigations, or assessments.

Emergency Response Exemption

The fire department shall continue to use the following to define rescue policy and procedures including equipment that is used during both emergency incidents and non-emergency training events.

- WAC 296.305
- NFPA 1670
- NFPA 1006
- King County Technical Rescue Manual

Guidelines for Employees Using Specific Equipment

The following is not a comprehensive summary of equipment that will be used as part of the city's fall protection policy. For each of these items or systems, or for any other systems that supervisors incorporate into a fall protection plan, specialized training or manufacturers' recommendations will govern.

- **Ladders:** Employees who work on ladders with a working height of 10 feet or more shall be knowledgeable of the following:
 - How to inspect ladders for visible defects
 - How to use ladders properly
- **Fall Arrest Systems:** Employees who use personal fall arresting systems to control fall hazards in their work area shall be knowledgeable of the following:
 - The application limits of the equipment
 - The proper hook-up, anchoring and tie-off techniques including determination of elongation and deceleration distance
 - Methods of use, inspection, and storage of equipment

Personal fall arrest components including harnesses and lanyards shall be inspected prior to each use for mildew, wear, damage, and other deterioration. Defective components shall be removed from service, cut into pieces, and discarded to prevent their reuse.

Fall arrest systems including harnesses shall be inspected at least twice each year or according to manufacturer's recommendations. The date of the most current semi-annual inspection shall be recorded on an inspection tag which shall be attached to the equipment. In addition, records shall be kept and maintained showing date of purchase, dates when attachments were renewed, and dates when the entire harness assembly was inspected and by whom. Managers will ensure inspections occur and are documented as required.

- **Aerial lifts:** Employees who use aerial lifts shall be knowledgeable of the following:
 - The manufacturer's operating instructions.
 - Pre-start inspection of the lift
 - Inspection of the work area for dangerous conditions such as uneven surfaces, overhead obstructions such as power lines or other hazards
 - Load capacities of the equipment
 - How to safely move the equipment
 - How to prevent falls and use appropriate fall protection personal protective equipment
 - Minimum safe approach distances to energized power lines

- **Walking and working surfaces:** All Employees should be aware of the following guidelines to minimize slips, trips and falls on the same elevation of walking/working surfaces:
 - To prevent slipping/tripping/falling, all work environments including passageways, storerooms, and service areas must be kept clean, orderly and in a sanitary condition.
 - The floor of every work area will be maintained in a clean and, so far as possible, dry condition.
 - Where wet processes are used, drainage will be maintained and false floors, platforms, mats, or other dry standing places are provided.

Administration

- **Reporting requirements:** Constant awareness of and respect for fall protection procedures and compliance with all applicable safety rules is mandatory. Supervisors may issue warnings and implement disciplinary actions up to and including termination for failure to follow the guidelines of this program. Employees shall report any safety concerns to their supervisor immediately.

- **Inspection:** Supervisors will require the inspection of all components of fall protection systems prior to each use (either at the beginning of a specific task or at the beginning of workday). No inspection record keeping is required, but any component found to be outside of manufacturers' specifications with regard to expiration, mold or mildew, wear, damage, or other deterioration will be removed from service, disabled, or destroyed, and disposed of.

- **Training:** Under no circumstances will any employee work in areas of high fall hazards, perform work requiring fall protection devices, or use fall protection devices until they have attended training in fall protection. This includes all new employees regardless of previous experience.

The training program provided by the City includes classroom instruction, administered by department leadership, and operational training on specific fall hazards on-site, administered by operations managers or their designee.

Employees will require retraining under any of the following conditions:

- Changes in the workplace
- Changes in the types of fall protection systems or equipment to be used
- Inadequacies in an employee's knowledge of use of fall protection systems or equipment or observed behavior indicate that the employee has not retained the required training

Fall Protection Work Plan

City employees are required to complete a Fall Protection Work Plan under the following conditions:

- Where exposed to fall hazards of 10 feet or higher
- Where exposed to fall hazards of 6 feet or higher that cannot be addressed with temporary or permanent standard guard rail system
- Where exposed to hazards created by openings, excavation, or trenches below ground level

The Fall Protection Work Plan document identifies all hazards associated with the particular work being done at height and prescribes the appropriate controls to protect the employee. Supervisors may prepare Fall Protection Work Plans in advance for certain routine types of work.

Managers are required to ensure that all work done by their employees is done under a fall protection work plan. It is the manager's responsibility to review work plans and determine if they are being completed and followed appropriately.

A fall protection workplan template is located on the following page. All fall protection work plans will be kept in accordance with records retentions rules and then disposed of appropriately.

Fall Protection Work Plan

The City of Mercer Island Fall Protection Work Plan is developed and implemented pursuant to [WAC 296-880](#). It includes each area of the workplace where employees are assigned and where fall hazards of 10 feet or more exist, or where fall hazards of 6 or more feet exist that cannot be addressed with temporary or permanent guards. This work plan will be available on the job site for inspection by Labor and Industries.



| | | |
|-----------------------|-------------|--------|
| City of Mercer Island | <Site Name> | <Date> |
| <Address> | | |

Identify all fall hazards 10 feet or more above the ground level or lower level. Check all that apply.

- | | |
|---|---|
| <input type="checkbox"/> Open-sided floors <input type="checkbox"/> Decks/Balconies <input type="checkbox"/> Floor openings <input type="checkbox"/> Skylight openings <input type="checkbox"/> Wall openings | <input type="checkbox"/> Window openings <input type="checkbox"/> Door openings <input type="checkbox"/> Roof openings <input type="checkbox"/> Leading edge work <input type="checkbox"/> Mobile lift work |
|---|---|

Methods of fall protection to be used: (LSO = Low Slopes Only. Low Slopes = 18° or less)

- | | |
|--|--|
| <input type="checkbox"/> Guardrail system (LSO) <input type="checkbox"/> Warning line System (LSO) <input type="checkbox"/> Catch platform <input type="checkbox"/> Safety net <input type="checkbox"/> Covers <input type="checkbox"/> Personal fall arrest system | <input type="checkbox"/> Personal fall restraint system <input type="checkbox"/> Positioning device system <input type="checkbox"/> Horizontal lifelines <input type="checkbox"/> Vertical lifelines & rope grab <input type="checkbox"/> Safety watch system (LSO) <input type="checkbox"/> Warning line w/ safety monitor (LSO) |
|--|--|

Name of safety watch or monitor (if used): _____

Overhead Hazard Protection Methods

- | | |
|---|--|
| <input type="checkbox"/> Hard Hats <input type="checkbox"/> Overhead Hazard Signs <input type="checkbox"/> Debris Nets <input type="checkbox"/> Other: _____ | <input type="checkbox"/> Toe boards on Guardrails <input type="checkbox"/> Screens on Guardrails <input type="checkbox"/> Barricade to control Access to Area <input type="checkbox"/> Other: _____ |
|---|--|

Describe procedures for assembly, maintenance, inspection, disassembly of fall protection system to be used:

Describe procedures for handling, storage, and securing tools, equipment, and materials:
