



# City Safe

A Guide To Assist In Training  
Employees About:

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## ***WORKING SAFELY ON ELEVATED STRUCTURES***

Number 24

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We are all aware that working on elevated structures poses a significant risk to our employees. Simply working from a ladder presents a variety of increased dangers. Imagine working from two to three times as high and you can understand the hazards that are present when working from scaffolding or an elevated platform. Although this type of work may not be performed on a day-to-day basis in your city, the need to know how to work safely from these structures still exists.



Some workers may have never done this kind of work before and some may feel uncomfortable as soon as their feet leave the ground. Undoubtedly, this unfamiliarity and sense of uneasiness that comes from being elevated are major contributors to slips, falls, and accidents that happen on elevated structures.

Because scaffolding is temporary and field erected, it is subject to wear and abuse, improper assembly, and unauthorized changes. Construction standards require that a “competent person” inspect scaffolds for defects before every work shift. Yet, in all industries, every employee who works on or around scaffolding should be aware of safety requirements. The following list includes things to watch for:

- Scaffolding must be erected on firm footing capable of carrying the maximum intended load. Boxes, barrels, loose concrete blocks, or brick must not be used to support the structure.
- Consideration must be given to the weight the scaffold is to carry. It must be capable of supporting, without failure, four times the maximum intended load. The load includes not only the weight of the people on the scaffold but also any supplies and equipment being used.

- Scaffolding is naturally unstable because it is usually a tall structure with a narrow base. To counteract this, the scaffold must be braced or tied off to a stable structure.
- The planking used must be “scaffold grade.” The wood must be clear, free of loose knots, splits, or other defects. To create a proper work surface, generally two planks need to be laid side-by-side to create a 20" wide work platform. At the ends, the planking must overlap at least 6" but no more than 18" unless the planks are fastened to the supporting members.
- Toe boards at least 4" high should be installed along the outer scaffold edge, to prevent tools or materials from falling onto workers below.
- Guard rail requirements for supported scaffolds vary for different industries. The federal OSHA standard for construction and general industry requires guardrails when a platform is 10 feet or higher.
- Guard rails are usually made of 2x4 lumber or steel pipe. The top rail should be about 42" above the scaffold walking surface, with a “mid-rail” at about 21". Fiber or wire rope can be used if it is attached to rigid supports and kept taut. It should be noted that the railings must be of adequate strength to restrain someone who has started to fall.
- Railings can be omitted if a structure prevents their use. However, in these circumstances, you should wear a safety harness and life line if you working more than five feet above a solid surface.



Although elevated platforms or catwalks are generally constructed in a more permanent manner, significant risks do still exist.

- Handrails and supports should be checked periodically.
- Watch for moisture or other foreign substances which can create slippery or otherwise unstable conditions.
- When possible, stairs, rather than ladders should be used to reach the catwalks.
- Wherever the catwalks are supported from, the ceiling or the floor, the structural integrity should be checked or tested from time to time.

# The Three Point System

Falling while getting into or out of heavy equipment, a truck or tractor cab, or mounting or dismounting trailers is a sure way to get seriously hurt. An insurance industry study showed that falls from vehicles produced injuries that were almost 25% worse than other types of injuries.

Even an ankle sprain can play havoc with your ability to use equipment properly. Minor injuries can cost a city big in terms of lost income and downtime. The biggest single cause of falls from a vehicle is driver error and failure to follow the THREE-POINT rule.

## **WHAT CAN YOU DO TO AVOID FALLS?**

No matter what type of access system your vehicle has available, use the THREE-POINT system to significantly reduce the chance of a slip or fall. The THREE-POINT system means three of your four limbs are in contact with the vehicle at all times—two hands and one foot, or two feet and one hand.

The THREE-POINT system allows a person to have maximum stability and support, thereby reducing the likelihood of slipping and falling.

## **DO'S**

- Wear shoes with good support. Avoid athletic and other soft-soled shoes.
- Exit and enter facing the cab.
- Slow down and use extra caution in bad weather.
- Get a firm grip on rails or handles with your hands.
- Look for obstacles on the ground below before exiting.

## **DON'TS**

- Don't climb down with something in your free hand. Put it on the vehicle floor and reach up for it when you get down on the ground.
- Don't rush to climb out after a long drive. Descend slowly, to avoid straining a muscle.
- Don't ever jump out. You may land off balance, or on an uneven surface, and fall.
- Don't use tires or wheel hubs as a step surface.
- Don't use the door frame or door edge as a handhold.

The only person who can prevent a fall is you! The professional driver or operator knows all the do's and don'ts of getting in and out of vehicles and practices the Three Point rule every day.

# Safe-T-Tips

When lifting or carrying materials, keep the load as close to your body as you can. The farther the object is away from your body, the more your back and other muscles have to compensate, leading to more strains and injuries.

## Enforcing Safety Rules

The acceptance of a municipality's workplace safety rules should be considered a condition of every employee's employment. For cities that do not have a written policy for handling violations of city safety standards, the following is a possible process:

**First Offense:** Written warning issued by the department head no later than the employee's next work day.

**Second Offense:** Written warning issued by department head no later than the employee's next work day. If the employee must return home or elsewhere to obtain the proper safety clothing or equipment, the supervisor may determine the net loss of pay for the time not at work.

**Third Offense:** One-day suspension.

**Fourth Offense:** Three-day suspension.

**Fifth Offense:** Possible termination of employment.

Although it may seem severe to terminate an employee for simply failing to obey safety rules, the possible costs to the city and the potential dangers to co-workers are just too high to keep that kind of liability around.

We are always looking for new ideas or topics for City Safe. If you have a topic you would like to see covered in an upcoming edition, please contact Mark Morris at [mmorris@lkm.org](mailto:mmorris@lkm.org) or by phone at (785) 354-9565. We are also looking for knowledgeable authors who would like to write an article about a timely issue concerning safety in your city.

# **UPCOMING ANNUAL MEETING**

**KMIT** will hold its 2005 Annual Meeting on **Monday, October 10, 2005, at 3:30 p.m.**, in the Century II Convention Center in Wichita (exact room location will be listed in the League of Kansas Municipalities' Annual Conference materials).

The meeting will begin with a brief reception (with refreshments), and will conclude no later than 4:30, so that LKM Conference attendees can prepare for the evening events. Door prizes will be drawn at the conclusion of the meeting; must be present to win.

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