

**7601.4010 VEHICLE AND LIVESTOCK SCALE FOUNDATIONS.**

Subpart 1. **Generally.** Vehicle and livestock scales installed after December 31, 1985, must be installed on a reinforced, poured, concrete foundation. Scales may be installed in a concrete pit, according to subpart 2, or above grade level according to subpart 3 or 4. The foundation must be designed to support the weight of the scale and the anticipated maximum load on the scale without significant settling or cracking. Weighing element stands or bases must be securely bolted to the foundation. Space between a stand or base and the foundation must be filled with nonshrinking grout.

Subp. 2. **Pit-type scale foundation.** A pit-type vehicle or livestock scale foundation must meet the following requirements:

- A. the walls, floors, footings, and weighing element support piers must be reinforced, poured concrete;
- B. the clearance between the bottom of the weighbridge or other main structural member and the surface of the pit floor must be at least 48 inches;
- C. for outdoor scales, the pit floor must have an effective drain system so that the pit floor remains reasonably dry and clean;
- D. for outdoor scales, the tops of the pit walls must be above the existing grade level so that water will drain away from the scale; and
- E. for outdoor scales, the foundation must extend below the local frost line.

Subp. 3. **Aboveground scale; concrete pier foundation.** An aboveground vehicle or livestock scale foundation must meet the requirements in items A to H.

- A. The weighing elements must be supported on reinforced concrete foundation piers.
- B. Concrete surface slabs must be poured independently between the main foundation piers.
- C. The end piers of the foundation must have end walls to prevent fill material from interfering with scale operation.
- D. Where foundation construction techniques allow, the surfaces of the concrete slabs between the foundation piers must be sloped in a manner that will prevent water, dirt, and debris accumulation under the platform.
- E. The clearance between the bottom of the weighbridge or other main structural member and the slab surface must be at least six inches for vehicle scales and at least 12 inches for livestock scales.
- F. The scale platform, structural members, foundation surfaces, and surrounding area must be designed to allow access for cleaning under the scale platform and around all weighing elements.
- G. For outdoor scales, the tops of the piers and the surfaces of the slab or slabs between the piers must be above the existing grade level so that water will drain away from the scale.

H. The piers must extend below the local frost line.

Subp. 4. **Aboveground scale; floating concrete slab foundation.** An aboveground vehicle or livestock scale may be installed on a floating concrete slab foundation. The foundation must meet the following requirements:

A. The scale weighing element or elements must be supported on a monolithic, reinforced concrete slab. The entire slab must be at least 12 inches thick, and must conform to the scale manufacturer's installation and reinforcing requirements.

B. The foundation must be constructed on soil that has a uniform natural or engineered soil bearing of at least 1,500 pounds per square foot. See part 7601.4000, subpart 3.

C. A base of uniform, compacted, permeable aggregate, at least 24 inches deep, must be installed. The concrete slab foundation must be poured on top of this base.

D. The top surface of the foundation slab must be installed above the surrounding grade level so that water will flow away from the foundation and away from the permeable aggregate base that supports the foundation.

**Statutory Authority:** *MS s 239.06*

**History:** *20 SR 1928; 30 SR 346; 46 SR 731*

**Published Electronically:** *January 4, 2022*