

It is the intent of this document to highlight the Cold Weather Concrete requirements as stated in the 2012 International Residential Code (IRC) and the American Concrete Institute (ACI) 306, Standard Specification for Cold Weather Concreting. The following procedures shall be used as basis for the acceptance or rejection of any residential concrete inspection in the City of Leawood.

Cold Weather Inspection Practices

1. The inspection of cold weather concrete protection requirements will occur when the average temperature is at or below 40° F for 3 consecutive days and not above 50° F for more than 12 hours of any one of those days. Whether formally inspected by the city or not; footings, walls, slabs, sidewalks, patios, and drive approaches should all be protected appropriately.
2. The air temperature shall be at least 25 degrees and rising for an inspection of concrete related construction.
Exception: If the air temperature is below 25 degrees an inspection may be conducted provided special permission is granted from City Inspectors. Special permission may be granted for approved on-site heating or other approved methods.
3. Inspectors will verify the sub-grade is not frozen prior to concrete placement
4. Inspectors will verify that adequate protection components are on site at the time of inspection.
5. Concrete must be poured the same day as the inspection approval.
6. If footings were required to be protected from freezing, foundation walls will not be allowed to be poured for at least 48 hours.

Exception: If protection from freezing can be maintained for the footing as required, the wall may be poured after 24 hours has elapsed from the time of the original footing pour.

Methods of Protection

When cold weather conditions exist, surface concrete temperatures must be maintained at 55° F for 2-3 days depending on the concrete mix.

- **Footings** – an acceptable method of protection from freezing during the curing process is to cover footings with 6 inches of straw. The straw should be held in place with tarps or polyethylene sheeting.
- **Foundation Walls** – insulated blankets may be used.
- When pouring conventional concrete during cold weather conditions, the concrete shall be protected from freezing for at least 72 hours (3 days).
- When pouring concrete utilizing approved accelerators, Type III Portland Cement, or where the cement ratio is increased 100 lbs. per cubic yard; the concrete shall be protected from freezing for at least 48 hours (2 days).

If there is cause to believe that the concrete has not been properly protected during cold weather conditions as described above or per another approved method, the City Inspector will require that the concrete be tested in order to ensure that proper strength of the concrete has been developed.