



CLARK COUNTY
OHIO
COMMUNITY & ECONOMIC DEVELOPMENT

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Cold Weather Concrete Policy

This policy is to establish standards for placing concrete in cold weather conditions as defined by the American Concrete Institute Committee Report 306 (ACI 306). In accordance with ACI 306, concrete can be placed safely during the winter months if certain precautions are taken:

The ground on which the concrete is to be placed shall not be frozen. The sub grade material should not only be firm and dry, but it should be free of frost. Special precautions should be taken to ensure that forms and reinforcing are also free of frost.

The temperature shall be a minimum of 17° F and rising. If the temperature is below 17° F, then a written process by a registered design professional shall be submitted for review by the Building Official prior to the placement of concrete. At the time of inspection, all materials and methods shall be in place in accordance with the procedures outlined by the registered design professional for observance by the building inspector.

After being placed, the concrete must be covered by the appropriate insulation to maintain a concrete temperature of 50° F for three (3) days. Table 7.3.2 in ACI 306 prescribes insulation needed for various air temperatures.

For inspection purposes we will use the following guidelines:

FOR LOW TEMPERATURES BELOW 50 DEGREES

AND NOT BELOW 42 DEGREES R-2

AND NOT BELOW 33 DEGREES R-4

AND NOT BELOW 25 DEGREES R-6

AND NOT BELOW 17 DEGREES R-8

BELOW 17 DEGREES A DESIGN PROFESSIONAL REQUIRED

Straw will be assumed to have a value of R-1 for each inch provided when it is not compacted and covered with plastic visqueen or tarpaulin. The minimum concrete temperature as placed shall be 45-50° F.

When temperatures are below 17°, in addition to the engineering as stated above, post holes using “sacrete” are not permitted without some protective means such as providing a tented enclosure with heat provided.

If admixtures are necessary, then ASTM C-494 “Standard Specifications for Chemical Admixtures for Concrete” shall be applied. In that event, the concrete contractor and the ready-mix supplier shall work together to reach the desired results for the site conditions. A letter from the design engineer shall be sent to the building official describing the admixture(s) used to meet the conditions in the field. The use of air-entrained concrete as a method of controlling the curing process is encouraged.

Concrete inspections are to be performed on the day of the pour. Non-structural slabs may be inspected the day prior to the pour with permission from the building official. This policy does not apply to concrete pavement, base course, curb, curb and gutter, sidewalks, and driveways.

All design and construction shall be in compliance with the Ohio Building Code or the Residential Code of Ohio.