



Building Department Newsletter

November 2011

Special points of interest:

- Cold Weather Concrete
- Fun with BTUs
- Engineered Floor System Nailing
- Changes in Practice of Architecture



Please contact the Building Department with any questions, or obtain a copy of ACI 306 Cold Weather Concreting.

COLD WEATHER CONCRETE

It's that time of year again when we would like to remind you about cold weather concrete protection. Concrete that is allowed to freeze, especially in the first three days after placement, has its ultimate strength substantially reduced and is more likely to spall. The City's concern is that no concrete be allowed to freeze or be structurally loaded before reaching acceptable strength.

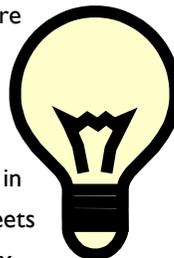
There are several ways to protect "winter concrete." To allow contractors as much flexibility as possible, you may consult with the building inspector as to the protection methods. These will vary on a case-by-case basis in the field, depending on specific site and weather conditions. Following are some general guidelines:

- If temperatures are expected to fall to 30°F, unformed faces should be covered with visqueen. You will get better protection if it doesn't rest directly on the concrete surface.
- If temperatures are regularly falling to 28°F and remaining there at least four hours per day, flatwork should be insulated with blankets or visqueen and straw. Forms for structural concrete should be left in place 48 hours.
- If temperatures are remaining at 30°F or lower, for 12 hours in 24, or if the temperature drops to 25°F, the concrete should be heated by an artificial heat source.
- All concrete materials and all reinforcement, forms, and ground with which concrete is to come in contact shall be free from frost, snow & slush. Remove snow, ice and slush prior to placement of concrete.

Given the unpredictability of Palouse weather, we urge you to be prepared to provide concrete protection in the event of sudden weather changes. Frozen concrete may require removal.

Fun with BTUs

A British thermal unit (BTU) is the heat required to raise the temperature of 1 pound of water 1 degree Fahrenheit. The heat stored in a birthday candle is about 2 BTUs. A 100 watt light bulb will use about 340 BTUs per hour. **About how many BTUs will you work off walking one mile? Answer on back:** . To determine the maximum size of a furnace in BTUs allowed in a new home's heating system you can use the work sheets located at <http://www.energy.wsu.edu/BuildingEfficiency/EnergyCode.aspx>



CITY OFFICES WILL BE CLOSED:

FRIDAY, NOVEMBER 11, 2011,

FOR VETERAN'S DAY &

THURSDAY-FRIDAY, NOVEMBER

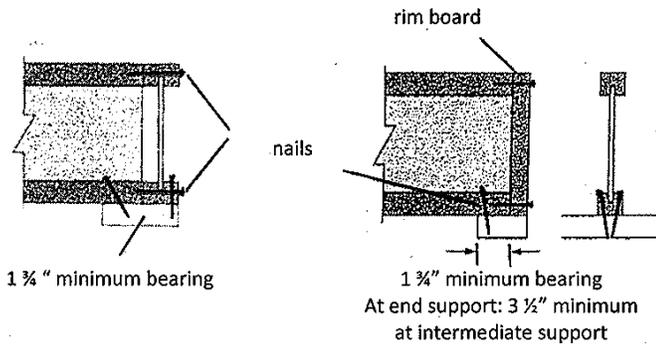
24-25, 2011, FOR

THANKSGIVING.

Engineered Floor System Nailing

Recent inspections indicate that correct rim board nailing to joist is lacking. The field installation details provided by the manufacturers of engineered wood joist product show nailing required at **both** top and bottom joist flanges

Joist Nailing Requirements at Bearing



Shear transfer: Connections equivalent to floor panel nailing schedule

through the rim board, closure panel or rim joist. The correct nail size for attaching floor joist flanges will differ in size according to the installation application. You can refer to the manufacturers supplied Framers Installation Pamphlet for the proper nailing sizes.

Changes in RCW 18.08 effective July 1, 2011

The RCW 18.08 governing the practice of architecture was revised in the last legislative session.

The provision in RCW 18.08.410 allowing design build projects by a registered contractor with the structural design performed by a registered engineer has been deleted. This section of the RCW now requires:

A licensed architect for the design and preparation of construction documents to construct, repair or remodel a building greater than 4000 square feet.

A licensed architect for the design and preparation of construction documents for building additions if the new total square footage of the building is greater than 4000 square feet.

A licensed architect for the design and preparation of construction documents for residential buildings containing more than 4 dwelling units.

This RCW does allow a non-licensed person to prepare the plans and construction documents for the repair or remodel of a project up to 4000 square feet in size in a building greater than 4000 square feet, if the work does not affect the life safety or structural systems of the building. The combined square footage of simultaneous projects within a building may not exceed 4000 square feet.

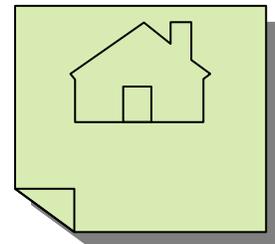
Answer to trivia:

About how many BTUs will you work off walking 1 mile?

300 BTUs

New Employee:

When calling or visiting the Public Works office at the City of Pullman you will likely talk to our new Administrative Specialist, Tracey Lane. Tracey comes to us from WSU and is looking forward to assisting the Public Works Department.



Save Paper &

Postage ~

If you would like to receive this newsletter electronically, please email tracey.lane@pullman-wa.gov and we will update your address.