



TO: Department of Building Safety Customers

SUBJECT: INFORMATIONAL BULLETIN 17-01

This bulletin outlines technical features primarily energy provisions relating for reroofing operations of existing commercial buildings with conditioned space.

DATE: October 3, 2017

The Department of Building Safety has developed this Informational Bulletin to describe and clarify some of the requirements for the energy efficiency of existing commercial buildings when roofing is replaced.

Changes in state and federal regulations have enhanced the energy efficiency requirements for buildings in Texas. Amarillo standards are aligned and will provide long term savings to our citizens and business owners.

Texas leads the nation in energy consumption and is the fifth largest energy consumer in the world. Buildings account for almost 40 percent of the state's total energy use and 70 percent of electricity use, representing a significant opportunity for energy savings.

Effective January 1, 2012, the Texas State Energy Conservation Office adopted the 2009 International Energy Code (Chapter 11) as the state-mandated energy code for all commercial construction.

Amarillo has adopted 2015 International Energy Conservation Code (IECC), EFFECTIVE MAY 1, 2015; this minimum standard regulates energy efficiency requirements for new buildings as well as roofing and reroofing operations.

IECC TABLE C402.1.3

Table with 3 columns: Use Group, All other ("Commercial"), and Group R. Rows include Insulation entirely above deck, Metal buildings, and Attic and other.

ci = Continuous insulation.

LS = Liner System—A continuous membrane installed below the purlins and uninterrupted by framing members.

The following bullets highlight the significant requirements:

Effective May 1, 2015:

- Minimum roofing standards will be in accordance with the 2015 International Building Code, as amended, and the appropriate codes as referenced to include the IECC.
New roof coverings shall not be installed without first removing all existing layers of roof coverings down to the roof deck where any of the following conditions exists:
1. Where the existing roof/roof covering is water soaked or deteriorated.
2. Where existing roof is wood shake, slate clay, cement or asbestos-cement tile.

3. Where the existing roof has two or more applications of ANY TYPE of roof covering.

**Exceptions:**

- Complete and separate systems designed to transmit roof loads directly to building's structural system...
  - Metal panel, metal shingle...over wood shake installed in accordance with Section 1510.4
  - The Application of a new protective coating over existing spray polyurethane foam roofing system...
  - ...existing ice barrier membrane is allowed to remain in place and covered with an additional layer of membrane...
- Where recover or overlay installation may be allowed, verification that the existing components are not wet is required.
  - Reroofing shall not be required to meet the minimum design slope requirement of one-quarter unit vertical in 12 units horizontal (2-percent slope) in Section 1507 for roofs that provide positive roof drainage.
  - Structural roof components shall be capable of supporting the roof covering system and the material and equipment loads that will be encountered during installation of the system.
  - Damaged, rusted, or deteriorated roof vents, metal edgings, drain outlets, collars and metal counter flashings shall not be reinstalled.
  - Aggregate surfacing materials shall not be reinstalled, except for ballasted single ply roofs.
  - Flashings shall be constructed in accordance with approved manufacturer's installation instructions. Metal flashing to which bituminous materials are to be adhered shall be primed prior to installation.
  - Perimeter metal flashings (edge securement) shall be designed and installed in accordance ANSI/SPRI ES-1 and IBC Sec.1504.5.
  - Insulation requirements for reroofing is if the deck or insulation is exposed a minimum of R-30 insulation is required to be installed. Batt insulation installed on suspended ceilings does not constitute insulation.

The 2015 International Energy Conservation Code as adopted by the City of Amarillo states in part(s):

**C101.4.3:** *"Additions, alterations, renovations or repairs to an existing building, building system or portion thereof shall conform to the provisions of this code as they relate to new construction without requiring the unaltered portion(s) of the existing building or building system to comply with this code..."*

**Exception:** *The following need not comply provided the energy use of the building is not increased:*

4. *Construction where the existing roof, wall or floor cavity is not exposed.*
5. *Reroofing for roofs where neither the sheathing nor the insulation is exposed. Roofs without insulation in the cavity and where the sheathing or insulation is exposed during reroofing shall be insulated either above or below the sheathing..."*

**Definitions:**

**Reroofing:** The process of recovering or replacing an existing *roof covering*. See "Roof recover" and "Roof replacement."

**Roof Recover:** The process of installing an additional *roof covering* over a prepared existing *roof covering* without removing the existing *roof covering*

**Roof Repair:** Reconstruction or renewal of any part of an existing roof for the purposes of its maintenance.

**Roof Replacement:** The process of removing the existing *roof covering*, repairing any damaged substrate and installing a new *roof covering*.

Energy cost savings for Texas resulting from the state updating its commercial and residential building energy codes in accordance with federal law are significant, estimated to be on the order of nearly \$1 billion annually by 2030.<sup>2</sup>

1. Texas State Energy Conservation Office.

2. US Department of Energy.