

ORDINANCE NO. 6018

**AN ORDINANCE TO AMEND FGC CHAPTER 10, ARTICLE XVI
INTERNATIONAL ENERGY CONSERVATION CODE, BY ADOPTING THE
2015 INTERNATIONAL ENERGY CONSERVATION CODE WITH LOCAL
AMENDMENTS**

WHEREAS, the Building Code Review and Appeals Commission reviewed the 2015 International Energy Conservation Code and the amendments thereto and recommends adoption of the 2015 International Energy Conservation Code with local amendments; and

WHEREAS, the City Council accepts the recommendations of the Building Code Review and Appeals Commission,

NOW, THEREFORE, BE IT ENACTED BY THE CITY COUNCIL OF THE CITY OF FAIRBANKS, ALASKA, as follows:

Section 1. Fairbanks General Code Chapter 10, Article XVI, is hereby repealed and re-enacted as follows:

ARTICLE XVI. INTERNATIONAL ENERGY CONSERVATION CODE

Sec. 10-456. Adopted.

The 2015 International Energy Conservation Code is hereby adopted.

Sec. 10-457. Amendments.

The City of Fairbanks Local Amendments to the 2015 International Energy Conservation Code is hereby adopted. Copies of the Local Amendments to the 2015 International Energy Conservation Code shall be made available at the Building Department and published online at the City of Fairbanks website.

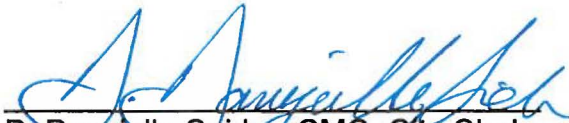
Section 2. That the effective date of this ordinance is the 25th day of June 2016.



JOHN EBERHART, MAYOR


AYES:	Rogers, Matherly, Gatewood, Pruhs, Cleworth, Huntington
NAYS:	None
ABSENT:	None
ADOPTED:	June 20, 2016

ATTEST:



D. Danyelle Snider, CMC, City Clerk

APPROVED AS TO FORM:



Paul Ewers, City Attorney

CITY OF FAIRBANKS

Local Amendments to the 2015 International Energy Conservation Code

(Adopted by Ordinance No. 6018)

The International Energy Conservation Code, 2015 Edition, is hereby amended as follows:

Commercial Provisions Chapter 1 – Chapter 6. Delete this section in its entirety.

Residential Provisions Chapter 1. Delete sections R101.5-101.5.1 and R102-R109 in their entirety and refer to the City of Fairbanks Administrative Code.

Section R202 General Definitions.

Vapor Retarder. Create a new definition to read as follows:

Vapor retarder. A vapor resistant material, membrane or covering having a permeance rating of .06 perm and recognized as a class 1 vapor retarder in accordance with the International Residential Code.

Section R401.3 Certificate. Delete this section in its entirety.

Table R402.1.2 Insulation and Fenestration Minimum R-Values by Component.

Delete the table in its entirety and replace with the following:

Table R402.1.1 Insulation and Fenestration Minimum R-Values by Component								
Climate Zone	Windows	Doors	Ceiling ^a	Exterior frame wall ^d	Floor ^e	Below grade wall ^b	Slab ^c & Depth	Crawl-space wall ^b
8	3.22	7	60 or 49	21	38	15/19	15, 4ft	15/19

a. The smaller value may be used with a properly sized, energy-heel truss.
 b. The first R-value applies to continuous insulation, the second to framing cavity insulation; either meets

the requirement.

c. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation shall not be placed below the footing portion unless bearing on entirely non-frost susceptible soils.

d. Includes rim joists

e For exposed floors, floors above crawl spaces do not require insulation.

Section R402.1.2 R-value Computation.

Delete the last sentence in its entirety.

Table R402.1.3 Insulation and Glazing Maximum U-Factors by component. Delete the table in its entirety and replace with the following:

Table R402.1.3 Insulation and Glazing Maximum U-Factors by Component c								
Climate Zone	Windows	Doors	Ceiling a	Exterior frame wall	Floor e	Below grade wall b	Slab	Crawl-space wall b
8	.31	.14	0.017 or 0.020	0.047	0.0026	0.067/ 0.053	0.067	0.066/ .052

a. The smaller value may be used with a properly sized, energy-heel truss.
 b. The first R-value applies to continuous insulation,

the second to framing cavity insulation; either meets the requirement.

c. R-5 shall be added to the required slab edge R-values for heated slabs. Insulation shall not be placed below the footing portion unless bearing on entirely non-frost susceptible soils.

d. Includes rim joists

e. For exposed floors, floors above crawlspaces do not require insulation.

Section R402.2.1 Ceilings with attic spaces. Amend this section by adding the following exception:

Exception: R-49 fiberglass blanket insulation may be compressed at the eave to provide a 1.5 inch air space when installed between wood trusses having a minimum heel height of 11.25 inches.

Section R402.2.5 Mass walls. Delete this section in its entirety.

Section R402.2.11 Crawl space walls. Delete this section in its entirety and rename and replace as follows:

Section R402.2.11 Crawl space walls and adjacent floor.

Floors located above crawl spaces and not directly exposed to exterior ambient temperatures are not required to be insulated if such spaces contain, plumbing piping, hydronic piping or water and sewer services. Crawl spaces may be vented by natural or mechanical means as prescribed by the International Residential Code or International Building Code. Crawl spaces which are vented to the exterior and contain piping as described above shall be protected during freezing temperatures by an approved method or material. Crawl space wall insulation shall be permanently fastened to the wall and extend downward from the floor level to the top of the footing. Exposed earth in crawl space foundations shall be covered with a continuous vapor retarder. All joints of the vapor retarder shall overlap by 6 inches and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches up the stem wall and shall be attached or secured to the stem wall in an approved manner.

Section R402.3.7 Glazing limitation. Add a new section to read as follows:

Glazing shall be limited to 15% of the conditioned floor area unless substantiated by a design prepared by a licensed engineer or architect registered in the State of Alaska

Section R402.4.6 Moisture control (Mandatory) Create a new section and title to read as follows.

Moisture control (Mandatory). The building design shall not create conditions of accelerated deterioration from moisture condensation. Walls, floors, ceilings, crawl space walls, crawl space floors and concrete slabs shall incorporate an approved, continuous, vapor retarder. The vapor retarder shall be installed on the warm side of the insulation. All seams shall be lapped a minimum of one stud or joist bay or sealed with an approved tape or sealant. All voids between joists and studs shall be insulated and sealed in an approved manner.

Exceptions:

1. In construction where moisture or its freezing will not damage materials.
2. One-third of total installed insulation may be installed on the warm side of vapor retarders.

Section R403.1.1 Programmable Thermostat. Delete this section

Section R403.2 Hot water boiler outdoor temperature setback. Delete this section.

Section R403.2.2 Sealing (Mandatory). Delete this section in its entirety and replace with the following:

All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with the 2015 International Mechanical Code as adopted by the City Of Fairbanks.

Section R403.2.4 Duct material. Create a new subsection to read as follows:

A duct transporting ventilation air shall be constructed of a smooth-walled material, such as galvanized steel or lined fiberglass (rigid or semi-rigid). The use of flexible ducting is approved as a transition from rigid ducting to mechanical and air handling equipment. In all circumstances flexible ducting shall be installed per the manufacturer's instructions. Flexible ducting shall be supported to prevent sags. The radius at the centerline shall not be less than one duct diameter.

Section R403.4 Mechanical system piping insulation (Mandatory). Insert an exception to read as follows:

Exception: piping installed within the building thermal envelope.

Section R403.6 Mechanical ventilation (Mandatory) Add the following to this paragraph:

Ventilation shall comply with the 2015 International Mechanical Code or the latest edition of the ASHRAE Standard 62.2 as referenced. Exterior exhaust vents shall be located to prevent exhaust air from entering attic or soffit vents.

Section R403.7 Equipment sizing and Efficiency Rating (Mandatory). Add the following to the end of the paragraph:

Heating and cooling equipment shall be sized in accordance with the 2015 International Mechanical Code as adopted by the City of Fairbanks or based on design loads determined in accordance with the procedures described in ASHRAE Fundamentals Handbook, or other approved equivalent computational procedures.

Section R404 Electrical Power and Lighting Systems. Delete this section in its entirety.

Section R405.3 Performance based compliance Add an exception to read as follows:

Exception: Compliance may be demonstrated through a home energy rating under a program approved by the Alaska Housing Finance Corporation (AHFC) that meets the following:

1. A minimum four star plus rating is required.
2. The maximum air infiltration rate shall not exceed seven air changes per hour at 50 Pascal's pressure difference.
3. The compliance rating shall be performed by a person authorized by AHFC.
4. Compliance with sections 404.4 through 404.6 is not required.

Chapter 6 Referenced Standards. Add the following to the ASHRAE section:

62.2 2013 Ventilation and acceptable indoor air quality in low rise buildings.