

CHAPTER 18

Building Regulations

Article I Building Code

- Sec. 18-1-10 Adoption
- Sec. 18-1-20 Amendments
- Sec. 18-1-30 Copy on file
- Sec. 18-1-40 General interpretations

Article II Mechanical Code

- Sec. 18-2-10 Adoption
- Sec. 18-2-20 Amendments
- Sec. 18-2-30 Copy on file

Article III Plumbing Code

- Sec. 18-3-10 Adoption
- Sec. 18-3-20 Amendments
- Sec. 18-3-30 Copy on file

Article IV Electrical Code

- Sec. 18-4-10 Adoption
- Sec. 18-4-20 Copy on file

Article V Fire Code

- Sec. 18-5-10 Adoption
- Sec. 18-5-20 Copy on file

Article VI Flood Control Plan

- Sec. 18-6-10 Findings of fact
- Sec. 18-6-20 Purpose
- Sec. 18-6-30 Methods of reducing flood losses
- Sec. 18-6-40 Definitions
- Sec. 18-6-50 Applicability
- Sec. 18-6-60 Compliance
- Sec. 18-6-70 Interpretation
- Sec. 18-6-80 Disclaimer of liability
- Sec. 18-6-90 Development permit
- Sec. 18-6-100 Duties and responsibilities of Chief Building Official
- Sec. 18-6-110 Variance procedure
- Sec. 18-6-120 General standards
- Sec. 18-6-130 Specific standards
- Sec. 18-6-140 Floodways
- Sec. 18-6-150 Below-grade residential crawlspace construction

Article VII Fuel Gas Code

- Sec. 18-7-10 Adoption
- Sec. 18-7-20 Amendments
- Sec. 18-7-30 Copy on file

Article VIII Residential Code

- Sec. 18-8-10 Adoption
- Sec. 18-8-20 Amendments
- Sec. 18-8-30 Copy on file

Article IX	Energy Conservation Code
	Sec. 18-9-10 Adoption
	Sec. 18-9-20 Copy on file
Article X	Existing Building Code
	Sec. 18-10-10 Adoption
	Sec. 18-10-20 Amendments
	Sec. 18-10-30 Copy on file
Article XI	Private Sewage Disposal Code
	Sec. 18-11-10 Adoption
	Sec. 18-11-20 Copy on file
Article XII	Property Maintenance Code
	Sec. 18-12-10 Adoption
	Sec. 18-12-20 Copy on file
Article XIII	Marshall & Swift Valuation Service
	Sec. 18-13-10 Adoption
	Sec. 18-13-20 Copy on file
Article XIV	Green Building Program
	Sec. 18-14-10 Purpose
	Sec. 18-14-20 Definitions
	Sec. 18-14-30 Applicability and administration
	Sec. 18-14-40 Minimum efficiency requirements
	Sec. 18-14-50 Green point requirements
	Sec. 18-14-60 Green point values
	Sec. 18-14-70 Alteration or modification
	Sec. 18-14-80 Regulations
	Sec. 18-14-90 Permit fee

ARTICLE I

Building Code

Sec. 18-1-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Building Code, 2006 edition ("IBC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference. The subject matter of the IBC includes comprehensive provisions and standards regulating the construction, alteration, moving, demolition, occupancy, use, height, area and maintenance of all buildings or structures for the purpose of protecting the public health, safety and welfare. (Ord. 846 §3, 1989; Ord. 93-O-15 §3, 1993; Ord. 96-O-4 §1, 1996; Ord. O-10 §1, 2001; Ord. O-4 §1, 2004; Ord. O-5 §1, 2007; Ord. O-8 §1, 2009)

Sec. 18-1-20. Amendments.

The IBC is hereby amended as follows:

- (1) Replace Section 105.5 with the following:

"Every permit shall expire if the work authorized by such permit is not commenced within sixty (60) days from the issue date of such permit or if the work authorized is suspended or abandoned for a period of sixty (60) days at any time after the work is started. Every permit shall expire if the work authorized by such is not completed within the time limits set forth below, beginning on the date of issuance.

"1. New primary commercial buildings and major additions or alterations thereto: twelve (12) months;

"2. Commercial tenant finish or remodel: six (6) months;

"3. New primary residential buildings and major additions or alterations thereto: nine (9) months;

"4. Residential basement finish and remodels: nine (9) months;

"5. New accessory structures and additions thereto: four (4) months;

"6. Miscellaneous construction including public utilities, street paving and street improvements: six (6) months;

"7. Minor accessory items, repairs and replacements, including but not limited to signs, water heaters, furnaces, air conditioners, roofing and siding: two (2) months.

"Prior to the expiration of the permit, the permittee may make written request for an extension of the permit time. The building official may grant one (1) extension of the expiration equal to the length of the original permit time, at no charge. Additional extensions of the permit may be granted upon written request at a cost of one-half (½) of the original permit fee for each permit extension."

(2) Section 105.6 is amended by adding:

"The suspension or revocation of any permit or other privileges conferred by the town shall not be regarded as a penalty for the purpose of this building code."

(3) Section 108.2 is amended by adding the following sentence:

"See Chapter 4 of the Superior Municipal Code for the permit fee schedule."

(4) Section 108.3 is amended by adding the following sentence:

"See Article XIII of Chapter 18 of the Superior Municipal Code."

(5) Section 108.4 is amended by adding the following sentence:

"Such fee will generally be equal to the permit fee."

(6) Delete Section 112.3 in its entirety.

(7) Section 310 is amended by adding the following:

"310.3 Fireplace installation. Any new or remodeled fireplace to be installed or constructed in any structure in the town shall be one of the following:

"(1) A gas appliance;

"(2) An electric device;

"(3) A fireplace or fireplace insert that meets the most stringent emissions standards for wood stoves established by the Air Quality Control Commission pursuant to Section 25-7-407(8), C.R.S., or any other clean-burning device that is approved by the Air Quality Control Commission."

(Ord. 846 §§3, 5, 7, 1989; Ord. 93-O-15 §3, 1993; Ord. O-10 §2, 2001; Ord. O-4 §1, 2004; Ord. O-5 §1, 2007; Ord. O-8 §1, 2009)

Sec. 18-1-30. Copy on file.

One (1) copy of the IBC is on file in the office of the Town Clerk and is available for public inspection. (Ord. 846 §9, 1989; Ord. O-10 §3, 2001; Ord. O-4 §1, 2004; Ord. O-5 §1, 2007; Ord. O-8 §1, 2009)

Sec. 18-1-40. General interpretations.

The following general interpretations are hereby made:

(1) Frost line shall be established as three (3) feet.

(2) Wind load shall be established as twenty-five (25) pounds per square foot of wind pressure.

- (3) Wind speed shall be established as one hundred twenty (120) miles per hour for the three-second gust, equivalent to a one-hundred-four-mile-per-hour fastest mile.
- (4) Roof live load shall be established as thirty (30) pounds per square foot.
- (5) Ground snow load shall be established as thirty (30) pounds per square foot.
- (6) The Town is within seismic design category A. (Ord. O-4 §1, 2004; Ord. O-5 §1, 2007; Ord. O-8 §1, 2009)

ARTICLE II

Mechanical Code

Sec. 18-2-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Mechanical Code, 2006 edition ("IMC"), published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference. The subject matter of the IMC includes comprehensive provisions and standards regulating the installation and maintenance of heating, ventilating, cooling and refrigerated systems within or on public or private buildings or other structures for the purpose of protecting the public health, safety and welfare. (Ord. 96-O-4 §1, 1996; Ord O-10 §4, 2001; Ord. O-4 §2, 2004; Ord. O-5 §2, 2007; Ord. O-8 §1, 2009)

Sec. 18-2-20. Amendments.

The IMC is hereby amended as follows:

- (1) Replace Section 106.4.3 with the following:
"See Section 105.5 of the IBC, as amended."
- (2) Add the following to Section 106.5.2:
"See Chapter 4 of the Superior Municipal Code for the permit fee schedule."
- (3) Replace Section 106.5.3 with the following:
"The building official is authorized to establish a refund policy."
- (4) Replace the last part of the first sentence of Section 108.4 of the FTP, beginning with "guilty of a ..." with the following: "subject to penalties as prescribed by law."
- (5) Delete the last sentence of Section 108.5.
- (6) Delete Section 109.2 in its entirety.
- (7) Section 910 is amended to read as follows:

"910.1 General. Floor furnaces are prohibited in any construction."

(Ord. 846 §§2, 5, 7, 1989; Ord. O-10 §5, 2001; Ord. O-4 §2, 2004; Ord. O-5 §2, 2007; Ord. O-8 §1, 2009)

Sec. 18-2-30. Copy on file.

One (1) copy of the IMC is on file in the office of the Town Clerk and is available for inspection. (Ord. 846 §9, 1989; Ord. O-10 §6, 2001; Ord. O-4 §2, 2004; Ord. O-5 §2, 2007; Ord. O-8 §1, 2009)

ARTICLE III

Plumbing Code

Sec. 18-3-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Plumbing Code, 2006 edition ("IPC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference. The subject matter of the IPC includes comprehensive provisions and standards regulating the installation of plumbing systems and equipment within or on public or private buildings or structures for the purpose of protecting the public health, safety and welfare. (Ord. 846 §1, 1989; Ord. 93-O-15 §1, 1993; Ord. 96-O-4 §1, 1996; Ord. O-10 §7, 2001; Ord. O-4 §3, 2004; Ord. O-5 §3, 2007; Ord. O-8 §1, 2009)

Sec. 18-3-20. Amendments.

The IPC is hereby amended as follows:

- (1) Replace Section 106.5.3 with the following:

"See Section 105.5 of the IBC, as amended."

- (2) Add the following to Section 106.6.2:

"See Chapter 4 of the Superior Municipal Code for the permit fee schedule."

- (3) Replace Section 106.6.3 with the following:

"The building official is authorized to establish a refund policy."

- (4) Replace the last part of the first sentence of Section 108.4 beginning with "guilty of a ..." with the following: "subject to penalties as prescribed by law."

- (5) Delete the last sentence of Section 108.5.

- (6) Delete Section 109.2 in its entirety.

- (7) Add Section 603.1.1 as follows:

"603.1.1 Location of water service pipe. The water service pipe shall not go through the foundation unless sleeved and adequately protected from ground (soil) movement. Sleeves shall be completely filled with compressible material."

(8) Add Section 603.1.2 as follows:

"603.1.2 Materials of water service pipe. The water service pipe shall be copper or copper-alloy pipe meeting standard ASTM B 42 or ASTM B 302 or copper or copper-alloy tubing (Type K, WK, L, WL, M or WM) meeting standard ASTM B 75; ASTM B 88; ASTM B 251; ASTM B 447."

(9) Revise Table 605.3 to delete all except copper or copper-alloy pipe and copper or copper-alloy tubing. (Ord. 846 §1, 5, 7, 1989; Ord. O-10 §8, 2001; Ord. O-4 §3, 2004; Ord. O-5 §3, 2007; Ord. O-8 §1, 2009)

Sec. 18-3-30. Copy on file.

One (1) copy of the IPC is on file in the office of the Town Clerk and is available for public inspection. (Ord. 846 §9, 1989; Ord. O-10 §9, 2001; Ord. O-4 §3, 2004; Ord. O-5 §3, 2007; Ord. O-8 §1, 2009)

ARTICLE IV

Electrical Code

Sec. 18-4-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the National Electrical Code, 2008 edition ("NEC"), published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269, is hereby adopted by reference, without amendment. The subject matter of the NEC includes comprehensive provisions and standards regulating the installation of electrical conductors and equipment within or on public or private buildings or other structures and the installation of electrical conductors and equipment to a supply of electricity and other outside conductors on public or private property for the purpose of protecting the public health, safety and welfare. Permit fees for the purpose of this Article shall be as established by the Colorado State Electrical Board. (Ord. 808 §1, 1989; Ord. 93-O-15 §5, 1993; Ord. 96-O-4 §1, 1996; Ord. O-28 §1, 2001; Ord. O-11 §1, 2002; Ord. O-5 §4, 2007; Ord. O-13 §1, 2008; Ord. O-8 §1, 2009)

Sec. 18-4-20. Copy on file.

One (1) copy of the NEC is on file in the office of the Town Clerk and is available for public inspection. (Ord. 808 §2, 1989; Ord. O-5 §5, 2007; Ord. O-8 §1, 2009)

ARTICLE V

Fire Code

Sec. 18-5-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Fire Code, 2006 edition ("IFC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference, without amendment. The subject matter of the IFC includes comprehensive provisions and standards regulating the construction, alteration and use, height, area and maintenance of all public and private buildings or improvements for the purpose of protecting the public health, safety and welfare. (Ord. 846 §4, 1989; Ord. 93-O-15 §4, 1993; Ord. 96-O-4 §1, 1996; Ord. O-10 §11, 2001; Ord. O-4 §5, 2004; Ord. O-5 §7, 2007; Ord. O-8 §1, 2009)

Sec. 18-5-20. Copy on file.

One (1) copy of the IFC is on file in the office of the Town Clerk and is available for public inspection. (Ord. 846 §9, 1989; Ord. O-10 §13, 2001; Ord. O-5 §7, 2007; Ord. O-8 §1, 2009)

ARTICLE VI

Flood Control Plan

Sec. 18-6-10. Findings of fact.

(a) The flood hazard areas of the Town are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief and impairment of the tax base.

(b) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities and, when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from damage also contribute to flood loss. (Ord. 794 §1.2, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-20. Purpose.

The purpose of this Article is to promote the public health, safety and general welfare by minimizing public and private losses due to flood conditions, ensuring that potential buyers are notified when a property is in an area of special flood hazard and ensuring that those who occupy areas of special flood hazard assume responsibility for their actions. (Ord. 794 §1.3, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-30. Methods of reducing flood losses.

This Article includes methods for:

(1) Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;

(2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Controlling the alteration of natural floodplains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;

(4) Controlling filling, grading, dredging and other development which may increase flood damage; and

(5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. 794 §1.4, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-40. Definitions.

For purposes of this Article, the following terms shall have the following meanings:

Appeal means a request for a review of the Building Inspector's interpretation of any provisions of this Article or a request for a variance.

Area of special flood hazard means the land in the floodplain within a community subject to a one-percent or greater chance of flooding in any given year.

Base flood means the flood having a one-percent chance of being equaled or exceeded in any given year.

CBO means the Town's Chief Building Official or designee.

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.

Existing mobile home park means a mobile home park for which the construction of facilities for servicing the lot on which the mobile homes are to be affixed (including, at a minimum, the installation of utilities, either final site grading or the pouring of concrete pads and the construction of streets) are completed before the effective date of the ordinance codified herein.

Expansion to an existing mobile home park means the preparation of additional sites by the construction of facilities for servicing the lots on which the mobile homes are to be affixed, including the installation of utilities, either final site grading or pouring of concrete pads or the construction of streets.

Flood or flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from: the overflow of inland or tidal waters; or the unusual and rapid accumulation or runoff of surface waters from any source.

Flood insurance rate map (FIRM) means the official map on which the Federal Emergency Management Agency has delineated areas subject to flooding by the base flood, special flood hazards and the risk premium zones applicable to the Town, which may also include the delineation of water surface elevation and floodway boundaries.

Flood insurance study means the official report provided by the Federal Emergency Management Agency that includes flood profiles, the Flood Boundary-Floodway Map and the water surface elevation of the base flood.

Floodway means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.

Lowest floor means the lowest floor of the lowest enclosed area, including a basement. An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this Article.

Mobile home means a structure, transportable in one (1) or more sections, which is eight (8) body feet or more in width and is thirty-two (32) body feet or more in length, and which is built on a permanent chassis and designed to be used as a dwelling without permanent foundation when connected to required utilities, and includes the plumbing, heating, air conditioning and electrical systems contained therein, but excluding factory-built homes, manufactured homes and recreational vehicles.

Mobile home lot or space means a designated portion of a mobile home park designed for the placement of a single mobile home and accessory structures for the exclusive use of the occupants and is exclusive of streets, walks and other common use areas in a mobile home park and exclusive of Town streets, alleys, walks or other public easements and adjacent private properties.

Mobile home park means a plot of land under single or unified ownership where two (2) or more mobile homes are located on pads on lots or spaces for permanent dwelling purposes.

New construction means structures for which the start of construction commenced on or after the effective date of this Article.

Recreational vehicle means a vehicle, that is: (1) built on a single chassis; (2) four hundred (400) square feet or less when measured at the largest horizontal projections; (3) designed to be self-propelled or permanently towable by a light-duty truck; and (4) designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

Start of construction includes substantial improvement and means the date the building permit was issued, provided that the actual start of construction, repair, reconstruction, placement or other improvement was within one hundred eighty (180) days of the permit date. The *actual start* means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns or any work beyond the stage

of excavation or the placement of a mobile home on a foundation. *Permanent construction* does not include land preparation such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the *actual start of construction* means the first alteration of any wall, ceiling, floor or other structural part of a building, regardless of whether that alteration affects the external dimensions of the building.

Structure means anything which is built or constructed upon the ground.

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damage condition would equal or exceed fifty percent (50%) of the market value of the structure before the damage occurred.

Substantial improvement means any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds fifty percent (50%) of the market value of the structure either before the improvement or repair is started or, if the structure has been damaged and is being restored, before the damage occurred. A substantial improvement is considered to occur when the first alteration of any wall, ceiling, floor or other part of the structure commences, whether or not that alteration affects the external dimensions of the structure or any act that requires a building permit. The term does not, however, include any project for improvement of a structure to comply with state, county or Town health, sanitary or safety code specifications which are solely necessary to assure safe conditions or any alteration of a structure listed on the National Register of Historic Places or the State Register of Historic Properties.

Variance means a grant of relief from the requirements of this Article which permits construction or development in a manner that would otherwise be prohibited by this Article. (Ord. 794 §2.0, 1989; Ord. O-13 §1, 2002; Ord. O-8 §1, 2009)

Sec. 18-6-50. Applicability.

(a) This Article shall apply to all areas of special flood hazard within the jurisdiction of the Town.

(b) The areas of special flood hazard identified by FEMA in a scientific and engineering report entitled, "The Flood Insurance Study, Boulder County, Colorado, and Incorporated Areas," dated October 4, 2002, with an accompanying FIRM, are hereby adopted by reference and declared to be a part of this Article. Copies of the Flood Insurance Study and FIRM are on file at the Town Hall, 124 East Coal Creek Drive, Superior, Colorado. (Ord. 794 §§3.1, 3.2, 1989; Ord. 95-O-8 §1, 1995; Ord. O-13 §2, 2002; Ord. O-8 §1, 2009)

Sec. 18-6-60. Compliance.

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this Article and other applicable regulations. (Ord. 794 §3.3, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-70. Interpretation.

(a) This Article is not intended to repeal, abrogate or impair any existing easements, covenants or deed restrictions. However, where this Article and another Article, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

(b) In interpreting and applying this Article, all provisions shall be:

(1) Considered minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under state law. (Ord. 794 §§3.4, 3.5, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-80. Disclaimer of liability.

The degree of flood protection required by this Article is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This Article does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This Article shall not create liability on the part of the Town, any officer or employee thereof or FEMA for any flood damages that result from reliance on this Article or any administrative decision lawfully made thereunder. (Ord. 794 §3.6, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-90. Development permit.

A development permit shall be obtained before construction or development begins within any area of special flood hazard. Application for a development permit shall be made on forms furnished by the Building Inspector and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities and the location of the foregoing. Where base flood elevations are utilized, all new construction, substantial improvements and other development shall comply with Section 18-6-100 below. Specifically, the following information is required:

(1) Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;

(2) Elevation in relation to mean sea level to which any structure has been floodproofed;

(3) Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 18-6-130 of this Article; and

(4) A description of the extent to which any watercourse will be altered or relocated as a result of proposed development. (Ord. 794 §4.1, 1989; Ord. O-13 §3, 2002; Ord. O-8 §1, 2009)

Sec. 18-6-100. Duties and responsibilities of Chief Building Official.

(a) The CBO is hereby appointed to administer and implement this Article by granting or denying development permit applications in accordance with its provisions.

(b) Duties of the CBO shall include, but not be limited to:

(1) Permit review.

a. Review all development permits to determine that the permit requirements of this Article have been satisfied.

b. Review all development permits to determine that all necessary permits have been obtained from federal, state or local governmental agencies from which prior approval is required.

c. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of Paragraph 18-6-150(1) of this Article are met.

(2) Use of other base flood data. When base flood elevation data has not been provided in accordance with this Article, the CBO shall obtain, review and reasonably utilize any base flood elevation and floodway data available from any source. Where base flood elevation data is utilized, all new construction, substantial improvements or other development in Zone A are administered in accordance with the applicable provisions of this Article.

(3) Information to be obtained and maintained.

a. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures and whether or not the structure contains a basement.

b. For all new or substantially improved floodproofed structures:

1. Verify and record the actual elevation (in relation to mean sea level) to which the structure has been floodproofed.

2. Maintain floodproofing certifications.

c. Maintain for public inspection all records pertaining to the provisions of this Article.

(4) Alteration of watercourses.

a. Notify adjacent communities and the Colorado Water Conservation Board prior to any alteration or relocation of a watercourse and submit evidence of such notification to FEMA.

b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

(5) Interpretation of FIRM boundaries. Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards. (Ord. 794 §4.3, 1989; Ord. O-13 §4, 2002; Ord. O-8 §1, 2009)

Sec. 18-6-110. Variance procedure.

(a) Appeal board.

(1) The Board of Adjustment shall hear and decide appeals and requests for variances from the requirements of this Article. The Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision or determination made by the Building Inspector in the enforcement or administration of this Article.

(2) Those aggrieved by the decision of the Board of Adjustment may appeal such decision to the Boulder County District Court as provided by law.

(3) In passing upon such applications, the Board of Adjustment shall consider all technical evaluations, all relevant factors, standards specified in this Article and:

- a. The danger that materials may be swept onto other lands to the injury of others;
- b. The danger to life and property due to flooding or erosion damage;
- c. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owners;
- d. The importance of the services provided by the proposed facility to the community;
- e. The necessity to the facility of a waterfront location, where applicable;
- f. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
- g. The compatibility of the proposed use with the existing and anticipated development;
- h. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
- i. The safety of access to the property in times of flood for ordinary and emergency vehicles;
- j. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site; and
- k. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, streets and bridges.

(4) Upon consideration of the factors of Paragraph (3) above and the purposes of this Article, the Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of the Article.

(5) The CBO shall maintain the records of all appeal actions, including technical information, and report any variances to FEMA.

(b) Criteria for variances.

(1) Generally, variances may be issued for new construction and substantial improvements to be erected on a lot on one-half ($\frac{1}{2}$) acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base level, provided that Subparagraphs (a)(3)a. through k. hereof have been fully considered. As the lot size increases beyond the one-half ($\frac{1}{2}$) acre, the technical justifications required for issuing the variance increases.

(2) Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Register of Historic Properties without regard to the procedures set forth in the remainder of this Section.

(3) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(4) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(5) Variances shall only be issued upon:

a. A showing of good and sufficient cause;

b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and

c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.

(6) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk from the reduced lowest floor elevation. (Ord. 794 §4.4, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-120. General standards.

In all areas of special flood hazard, the following standards are required:

(1) Anchoring.

a. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure and capable of resisting the hydrostatic and hydrodynamic loads.

b. All mobile homes must be elevated and anchored to resist flotation, collapse or lateral movement and capable of resisting the hydrostatic and hydrodynamic loads. Methods of anchoring may include, but are not limited to, over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces. Specific requirements may include:

1. Over-the-top ties at each of the four (4) corners of the mobile home, with two (2) additional ties per side at intermediate locations, with mobile homes less than fifty (50) feet long requiring one (1) additional tie per side;

2. Frame ties at each corner of the mobile home with five (5) additional ties per side at intermediate points, with mobile homes less than fifty (50) feet long requiring four (4) additional ties per side;

3. A requirement that all components of the anchoring system be capable of carrying a force of four thousand eight hundred (4,800) pounds; and

4. A requirement that any additions to the mobile home be similarly anchored.

(2) Construction materials and methods.

a. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.

b. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

c. All new construction and substantial improvements shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(3) Utilities.

a. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the system.

b. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters.

c. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

(4) Subdivision proposals. All subdivision proposals shall:

- a. Be consistent with the need to minimize flood damage;
- b. Locate and construct public utilities and facilities such as sewer, gas, electrical and water systems to minimize flood damage;
- c. Provide adequate drainage to reduce exposure to flood damage; and
- d. Provide base flood elevation data for development which contains at least fifty (50) lots or five (5) acres, whichever is less. (Ord. 794 §5.1, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-130. Specific standards.

In areas of special flood hazard where base flood elevation data has been provided, the following shall apply:

(1) Residential construction. New construction and substantial improvement of any residential structure shall have the lowest floor (including basement) elevated to one (1) foot above the base flood elevation;

(2) Nonresidential construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor (including basement) elevated to one (1) foot above the base flood elevation or, together with attendant utility and sanitary facilities, shall:

- a. Be floodproofed so that below the base flood elevation the structure is watertight to an elevation of one (1) foot above the base flood elevation with walls substantially impermeable to the passage of water;
- b. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
- c. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of this Paragraph.

(3) Openings in enclosures below the lowest floor. For all new construction and substantial improvements, fully enclosed areas below the lowest floor that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- a. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
- b. The bottom of all openings shall be no higher than one (1) foot above grade.
- c. Openings may be equipped with screens, louvers or other coverings or devices, provided that they permit the automatic entry and exit of floodwaters.

(4) Mobile homes.

a. Mobile homes shall be anchored in accordance with Paragraph 18-6-120(1) above.

b. All mobile homes or those to be substantially improved shall be elevated on a permanent foundation such that the lowest floor of the mobile home is one (1) foot above the base flood elevation and is securely anchored to an adequately anchored foundation system. This Subparagraph applies to mobile homes that are to be placed or substantially improved in an expansion to an existing mobile home park. This Subparagraph does not apply to mobile homes that are to be placed or substantially improved in an existing mobile home park except where the repair, reconstruction or improvement of the streets, utilities and pads equals or exceeds fifty percent (50%) of the value of the streets, utilities and pads before the repair, reconstruction or improvement has commenced.

(5) Recreational vehicles. Recreational vehicles shall:

a. Be on the site for fewer than one hundred eighty (180) consecutive days;

b. Be fully licensed and ready for highway use; or

c. Meet the permit requirements and elevation and anchoring requirements for mobile homes. (Ord. 794 §5.2, 1989; Ord. O-12 §21, 2000; Ord. O-13 §5, 2002; Ord. O-8 §1, 2009)

Sec. 18-6-140. Floodways.

Certain areas located within areas of special flood hazard are designated as floodways. Because a floodway is an extremely hazardous area due to the velocity of floodwaters which carry debris, potential projectiles and erosion potential, the following shall apply:

(1) Encroachments, including fill, new construction, substantial improvements and other developments, are prohibited unless certification by a registered professional engineer or architect is provided demonstrating that such encroachments will not result in any increase in flood levels during the occurrence of the base flood discharge.

(2) If the conditions contained in Paragraph (1) hereof are satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Sections 18-6-120 and 18-6-130 above. (Ord. 794 §5.3, 1989; Ord. O-8 §1, 2009)

Sec. 18-6-150. Below-grade residential crawlspace construction.

New construction and substantial improvement of any below-grade crawlspace shall:

(1) Have the interior grade elevation, that is below base flood elevation, no lower than two (2) feet below the lowest adjacent grade;

(2) Have the height of the below-grade crawlspace measured from the interior grade of the crawlspace to the top of the foundation wall, not to exceed four (4) feet at any point;

(3) Have an adequate drainage system that allows floodwater to drain from the interior area of the crawlspace following a flood; and

(4) Comply with provisions of this Article regarding construction materials and methods and Paragraph 18-6-130(3). (Ord. O-13 §6, 2002; Ord. O-8 §1, 2009)

ARTICLE VII

Fuel Gas Code

Sec. 18-7-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Fuel Gas Code, 2006 edition ("IFGC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference. The subject matter of the IFGC establishes minimum regulations for fuel gas systems and gas-fired appliances for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §6, 2004; Ord. O-5 §8, 2007; Ord. O-8 §1, 2009)

Sec. 18-7-20. Amendments.

The IFGC is hereby amended as follows:

(1) Replace Section 106.4.3 with the following:

"See Section 105.5 of the IBC, as amended."

(2) Add the following to Section 106.5.2:

"See Chapter 4 of the Superior Municipal Code for the permit fee schedule."

(3) Replace Section 106.5.3 with the following:

"The building official is authorized to establish a refund policy."

(4) Replace the last part of the first sentence of Section 108.4 beginning with "guilty of a ..." with the following: "subject to penalties as prescribed by law."

(5) Delete the last sentence of Section 108.5.

(6) Delete Section 109.2 in its entirety.

(7) Section 609 is amended to read as follows:

"609.1 General. Floor furnaces are prohibited in any construction."

(8) Section 621 is amended to read as follows:

"621.1 General. Unvented room heaters are prohibited in any construction."

(Ord. O-10 §14, 2001; Ord. O-4 §6, 2004; Ord. O-5 §8, 2007; Ord. O-8 §1, 2009)

Sec. 18-7-30. Copy on file.

One (1) copy of the IFGC is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §14, 2001; Ord. O-4 §6, 2004; Ord. O-5 §8, 2007; Ord. O-8 §1, 2009)

ARTICLE VIII

Residential Code

Sec. 18-8-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Residential Code, 2006 edition ("IRC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference with appendices A through H and all tables. The subject matter of the IRC includes the design and construction of one- and two-family dwellings and townhomes for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §7, 2004; Ord. O-5 §9, 2007; Ord. O-8 §1, 2009)

Sec. 18-8-20. Amendments.

The IRC is hereby amended as follows:

- (1) Replace Section R105.5 with the following:

"See Section 105.5 of the IBC, as amended."

- (2) Section R105.6 is amended by adding:

"The suspension or revocation of any permit or other privileges conferred by the town shall not be regarded as a penalty for the purpose of this building code."

- (3) Section R108.2 is amended by adding the following sentence:

"See Chapter 4 of the Superior Municipal Code for the permit fee schedule."

- (4) Section R108.3 is amended by adding the following sentence:

"See Article XIII of this Chapter."

- (5) Section R108.6 is amended to read as follows:

"R108.6 Work commencing before permit issuance. See Section 108.4 of the IBC."

- (6) Delete Section R112.3 in its entirety.

(7) Section R309.1 is amended by adding the following sentence at the end of the paragraph:

"Doors must be self-closing, tight-fitting and latched when released from a 60-degree open position."

(8) Section 309.2 is amended by changing the two (2) numerical references to "½-inch gypsum board" to "⅝-inch Type X gypsum board."

(9) Section M1302 is amended by adding the following section:

"M1302.2 Fireplace installation. Any new or remodeled fireplace to be installed or constructed in any structure in the town shall be one of the following:

"a. A gas appliance;

"b. An electric device;

"c. A fireplace or fireplace insert that meets the most stringent emissions standards for wood stoves established by the Air Quality Control Commission pursuant to Section 25-7-407(8), C.R.S., or any other clean-burning device that is approved by the Air Quality Control Commission."

(10) Section M1408 is amended to read as follows:

"M1408.1 General. Floor furnaces are prohibited in any construction."

(11) Section M1414 is amended by adding the following section:

"M1414.3 Fireplace installation. Any new or remodeled fireplace or fireplace stove to be installed or constructed in any structure in the town shall be one of the following:

"a. A gas appliance;

"b. An electric device;

"c. A fireplace or fireplace insert that meets the most stringent emissions standards for wood stoves established by the Air Quality Control Commission pursuant to Section 25-7-407(8), C.R.S., or any other clean-burning device that is approved by the Air Quality Control Commission."

(12) Section G2437(609) is amended to read as follows:

"G2437.1(609.1) General. Floor furnaces are prohibited in any construction."

(13) Section G2445(621) is amended to read as follows:

"G2445.1(621.1) General. Unvented room heaters are prohibited in any construction."

(Ord. O-10 §14, 2001; Ord. O-4 §7, 2004; Ord. O-5 §9, 2007; Ord. O-8 §1, 2009)

Sec. 18-8-30. Copy on file.

One (1) copy of the IRC is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §14, 2001; Ord. O-4 §7, 2004; Ord. O-5 §9, 2007; Ord. O-8 §1, 2009)

ARTICLE IX

Energy Conservation Code

Sec. 18-9-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Energy Conservation Code, 2006 edition ("IECC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference, without amendment. The subject matter of the adopted code includes the design of energy-efficient buildings and energy-efficient mechanical, lighting and power systems for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §8, 2004; Ord. O-5 §10, 2007; Ord. O-8 §1, 2009)

Sec. 18-9-20. Copy on file.

One (1) copy of the IECC is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §14, 2001; Ord. O-5 §10, 2007; Ord. O-8 §1, 2009)

ARTICLE X

Existing Building Code

Sec. 18-10-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Existing Building Code, 2006 edition ("IEBC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference with all appendices and tables. The subject matter of the IEBC includes comprehensive provisions and standards regulating the use and reuse of existing buildings, including the alteration, change of occupancy, addition and relocation of existing buildings, including historic buildings, for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §9, 2004; Ord. O-5 §11, 2007; Ord. O-8 §1, 2009)

Sec. 18-10-20. Amendments.

The IEBC is hereby amended as follows:

- (1) Replace Section 105.5 with the following:

"See Section 105.5 of the IBC, as amended."

- (2) Delete Section 112.3. (Ord. O-10 §14, 2001; Ord. O-4 §9, 2004; Ord. O-5 §11, 2007; Ord. O-8 §1, 2009)

Sec. 18-10-30. Copy on file.

One (1) copy of the IEBC is on file in the office of the Town Clerk and is available for public inspection. (Ord. 10 §14, 2001; Ord. O-4 §9, 2004; Ord. O-5 §11, 2007; Ord. O-8 §1, 2009)

ARTICLE XI

Private Sewage Disposal Code

Sec. 18-11-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the Private Sewage Disposal Code, 2006 edition ("PSDC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, is hereby adopted by reference with all appendices and tables, without amendment. The subject matter of the PSDC includes comprehensive provisions and standards regulating the installation of private sewage disposal systems for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §10, 2004; Ord. O-5 §12, 2007; Ord. O-8 §1, 2009)

Sec. 18-11-20. Copy on file.

One (1) copy of the PSDC is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §14, 2001; Ord. O-5 §12, 2007; Ord. O-8 §1, 2009)

ARTICLE XII

Property Maintenance Code

Sec. 18-12-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the International Property Maintenance Code, 2006 edition ("IPMC"), published by the International Code Council, Inc., 500 New Jersey Avenue, NW, 6th Floor, Washington DC 20001, with all appendices and tables, is hereby adopted by reference, without amendment. The subject matter of the adopted code includes the conditions and maintenance of all property, buildings and structures for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §14, 2001; Ord. O-4 §11, 2004; Ord. O-5 §13, 2007; Ord. O-8 §1, 2009)

Sec. 18-12-20. Copy on file.

One (1) copy of the IPMC is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §14, 2001; Ord. O-5 §13, 2007; Ord. O-8 §1, 2009)

ARTICLE XIII

Marshall & Swift Valuation Service

Sec. 18-13-10. Adoption.

Pursuant to Section 31-16-202, C.R.S., the 2007 edition of the Marshall & Swift Valuation Service, published by Marshall & Swift/Boeckh, LLC, 350 South Grand Avenue, 34th Floor, Los Angeles, California 90071-3409, is hereby adopted by reference with all appendices and tables, without amendment. The subject matter of the adopted code includes valuation of building components for purposes of determining applicable fees and use taxes for the purpose of protecting the public health, safety and welfare. (Ord. O-10 §15, 2001; Ord. O-5 §14, 2007; Ord. O-8 §1, 2009)

Sec. 18-13-20. Copy on file.

One (1) copy of the Marshall & Swift Valuation Service is on file in the office of the Town Clerk and is available for public inspection. (Ord. O-10 §15, 2001; Ord. O-5 §14, 2007; Ord. O-8 §1, 2009)

ARTICLE XIV

Green Building Program

Sec. 18-14-10. Purpose.

The purpose of this Article is to create a Green Building Program to promote and encourage high-performing sustainable development and redevelopment within the Town through education, regulations and incentives. This Article is intended to promote cost-effective, energy-efficient structures that reduce the production of greenhouse gases from residential buildings, to conserve and protect water and other natural resources and to limit the amount of material sent to landfills. (Ord. O-8 §1, 2009)

Sec. 18-14-20. Definitions.

For purposes of this Article, the following terms shall have the following meanings:

Active solar (photovoltaic) electric system means a system designed to convert the sun's energy directly into electricity.

Addition means remodels and renovations of existing structures which may or may not add additional square footage to that existing structure.

Advanced Lighting Packages (ALP) means an application applied to lighting packages for new home construction that consists of a minimum of sixty percent (60%) Energy Star qualified hard-wired fixtures and one hundred percent (100%) Energy Star qualified ceiling fans, where installed.

Annual Fuel Utilization Efficiency (AFUE) means the ratio of annual output energy to annual input energy, which includes any nonheating season pilot input loss, and, for gas-or oil-fired furnaces or boilers, does not include electrical energy.

BF means a board foot, which is a volume measurement of lumber equal to one inch by one inch by one foot (1" x 1" x 1') or one hundred forty-four (144) cubic inches or one-twelfth ($\frac{1}{12}$) cubic foot.

Certified or accredited home energy rater or energy rater means a residential energy professional who is certified by Residential Energy Services Network.

Chief Building Official (CBO) means the Town's Chief Building Official or designee.

Combination space/water heating system means a plumbing system that uses the same pipes and water for space heating as is used for domestic use.

Complete demolition means the act or process of tearing down the entire structure identified in a demolition permit.

Conditioned space means any area or room within a heated or cooled building that contains uninsulated ducts, or any area or room with a direct fixed opening into an adjacent conditioned space.

Deconstruction plan means a list, summary or outline of the materials to be salvaged from an existing structure and the recycling, resale or reuse of those materials as an alternative to sending building materials to a landfill. Deconstruction is commonly separated into two (2) categories: structural and nonstructural. Nonstructural deconstruction, also known as soft-stripping, consists of reclaiming nonstructural components such as appliances, doors, windows, flooring and finish materials. Structural deconstruction involves dismantling the structural components of a building for diversion from the landfill.

Deconstruction professional means a professional engaged in the deconstruction field.

Demolition or demolish means an act or process of tearing down of an existing structure without regard to the reuse or recycling of any of the component building parts, and which removes one (1) or more of the following:

- a. Fifty percent (50%) or more of the roof area as measured in plan view; or
- b. Fifty percent (50%) or more of the exterior walls of a building as measured contiguously around the building coverage.

DHS means the Department of Health Services of California.

Direct vent space/water heating system means a fuel-burning appliance with a sealed combustion system that draws all air for combustion from the outside atmosphere and discharges all flue gases to the outside atmosphere.

FSC means the Forest Stewardship Council, which certifies lumber products and abides by criteria that ensure responsible management of the world's forests.

Heating, ventilation and air conditioning (HVAC) means the conditioning and control of the temperature and air in habitable spaces.

Home energy audit means an assessment of how much energy a home consumes, combined with suggestions as to how to increase the energy efficiency of that home. The result of an energy audit is a checklist of actions which, if taken, will improve energy efficiency.

Home Energy Rating System (HERS) Index means a rating system where an index of one hundred (100) represents the energy use of the "American Standard Building" and an index of zero (0) indicates that the proposed building uses no net purchased energy (a Zero Energy Building), and is a method to provide a standardized evaluation of a home's energy efficiency and projected energy costs.

IECC means the International Energy Conservation Code.

Load bin analysis means a computation of the heating and cooling loads using the Air Conditioning Contractors of America's Manual J, weather data from the National Oceanic Atmospheric Administration and design temperatures from the American Society of Heating, Refrigerating and Air Conditioning Engineers.

Locally sourced materials means products that are extracted, processed or manufactured within five hundred (500) miles of the Town.

Multi-dwelling project means a building or project with more than one (1) dwelling unit.

National Fenestration Rating Council (NFRC) means the organization that provides performance ratings on windows, doors and skylights.

New construction means all new residential structures and complete reconstructions of an existing residential structure.

Passive solar heating design means the design of a building to maintain interior thermal comfort throughout the sun's daily and annual cycles while reducing the requirements for active heating and cooling systems.

Recycled content means a building product that contains a minimum of twenty-five percent (25%) post-consumer recycled materials. Post-industrial (pre-consumer) recycled content is counted at half the rate of post-consumer content.

Remodel means an interior reconfiguration or upgrade of an existing structure of five hundred (500) square feet or greater, which requires a building permit and includes any of the following work: structural, electrical, plumbing and HVAC.

Renewable energy systems means renewable energy systems which meet the intent of the required on-site renewable energy offset, include solar thermal hot water systems, photovoltaic electric systems, geothermal heating, wood- and pellet-burning stoves, boilers or furnaces and small-scale wind generation systems.

Residential Energy Services Network or RESNET means an organization that sets the standards of quality, increases the opportunity for ownership of high-performance buildings and ensures the success of the building energy performance certification industry.

Residential structure means any single-family or multi-family development or any portion of a mixed-use development that is used as a dwelling unit.

Retained exterior wall means a wall that meets the following minimum standards:

- a. The wall retains studs or other structural elements, the exterior wall finish and the fully framed and sheathed roof above that portion of the remaining building to which such wall is attached;
- b. The wall is not covered or otherwise concealed by a wall that is proposed to be placed in front of the retained wall; and
- c. Each part of the wall is connected contiguously and without interruption to every other part of the wall.

Solar Heat Gain Coefficient (SHGC) means the ratio of solar heat gain entering the space through the fenestration assembly to the incident solar radiation. Solar heat gain includes directly transmitted solar heat and absorbed solar radiation that is then released into the space. A lower SHGC lowers the amount of transmitted solar energy into the space.

Solar thermal domestic hot water system means a system designed to use the sun's energy to heat water for domestic use.

Solar thermal space heating means a system designed to use the sun's energy to heat air for domestic use.

Square footage means all space which is or could be habitable living space, regardless of whether the space is actually finished for habitation. This includes unfinished below-grade space that may be finished for habitation, but does not include covered porches and decks.

Volatile Organic Compounds (VOCs) means a class of carbon-based molecules in substances and organic compounds that readily release gaseous vapors at room temperature as indoor pollutants and, when reacting with other exterior pollutants, can produce ground-level ozone.

Zoned, hydronic radiant heating means a radiant heating system that uses water as the heat transfer medium to heat a building divided into areas with separate temperature controls. (Ord. O-8 §1, 2009)

Sec. 18-14-30. Applicability and administration.

- (a) Applicability. This Article shall apply to all developments requiring a building permit for:
 - (1) New construction of residential structures;
 - (2) Complete restorations of damaged residential structures; and
 - (3) Additions or renovations of five hundred (500) square feet or greater that are made to existing residential structures.

(b) Exemptions. This Article shall not apply to the replacement of roofs or the building or replacement of fences or decks.

(c) Administration. This Article shall be administered, applied and interpreted in accordance with the IECC.

(d) Inspection. All approvals of residential construction projects subject to this Article shall be done in conjunction with a building permit application and field inspections. (Ord. O-8 §1, 2009)

Sec. 18-14-40. Minimum efficiency requirements.

(a) Energy efficiency. An applicant for a building permit for a new residential structure shall demonstrate that the building is more energy efficient than a building that meets the minimum requirements of the IECC. The minimum acceptable energy efficiency standards are as follows:

Energy Efficiency Requirements

<i>Type of Project</i>	<i>Square Footage</i>	<i>Energy Efficiency Thresholds</i>
Single-family dwellings	500—3,000	30% more energy-efficient than 2006 IECC
	3,001—5,000	50% more energy-efficient than 2006 IECC
	5,001 and over	75% more energy-efficient than 2006 IECC
Multi-family dwellings	Applies to all	30% more energy-efficient than 2006 IECC

(b) Efficiency measurement. New residential structures that are required to comply with this Article shall demonstrate compliance by:

- (1) Using HERS to be performed by a rater accredited by the RESNET; or
- (2) For multi-dwelling projects by:
 - a. Using a HERS rating sampling protocol authorized and approved by the Town Manager; or
 - b. Demonstrating that the requisite energy efficiency has been achieved by using the methodology in section 404, "Simulated Performance Alternative," or section 506, "Total Building Performance," of the IECC.

(c) Compliance. All new construction shall undergo the following:

- (1) At the time of filing a building permit application, a RESNET energy model shall be submitted with the building permit application showing that the proposed structure meets the required standards.
- (2) During construction, a certified energy rater shall perform a pre-drywall inspection to ensure the structure's ability to achieve the prescribed energy efficiency. The builder, property owner or agent shall submit verification of the energy rater's inspection to the Town prior to the scheduling of a drywall inspection by the Town.
- (3) Upon completion of construction and prior to the issuance of a certificate of occupancy, a blower door test and duct blaster test shall be performed by the energy rater, and documentation verifying that the structure meets the applicable standard shall be submitted to the Town.
- (d) Home energy audit. An applicant for a building permit for an addition to a residential structure or a remodel measuring five hundred (500) square feet or greater to a residential structure shall obtain a home energy audit. The applicant shall provide proof of the completion of the home energy audit with a building permit application.
- (e) Lighting efficiency. Prior to any final inspection for an addition to a residential structure or a remodel measuring five hundred (500) square feet or greater to a residential structure, the applicant shall install energy-efficient lamps with a luminous efficacy of forty (40) lumens per watt or above in at least fifty percent (50%) of the structure's existing light fixtures.
- (f) Direct vent furnace. When the scope of the work of an addition to a residential structure or a remodel of a residential structure requires replacement of a furnace, the furnace shall be replaced with a direct vent unit that has a minimum ninety percent (90%) AFUE.
- (g) Direct vent boiler. When the scope of the work of an addition to a residential structure or a remodel of a residential structure requires replacement of a boiler, the boiler shall be replaced with a direct vent unit that has a minimum eighty-five percent (85%) AFUE.
- (h) Construction waste recycling. An applicant for a building permit for construction of a new residential structure shall demonstrate that a minimum of fifty percent (50%) of construction waste is recycled. Waste diversion calculations and tracking spreadsheet forms must be provided to the Town at project completion to demonstrate that the minimum recycling requirements have been met. An applicant for an addition or remodel that is greater than five hundred (500) square feet is encouraged to divert as much construction waste as possible.
- (i) Demolition management. An applicant proposing to demolish a residential structure shall demonstrate through a deconstruction plan that at least sixty-five percent (65%) of material by weight from deconstruction, including concrete and asphalt, will be diverted from landfills. Compliance with the deconstruction plan shall be submitted to the Town prior to final inspection.
- (j) All street and walkway lighting installed in new residential developments shall be powered by renewable energy or energy offsets. (Ord. O-8 §1, 2009)

Sec. 18-14-50. Green point requirements.

(a) All residential structures subject to this Article shall earn green points according to the following schedule, prior to the issuance of a building permit:

Green Point Requirements

<i>Project Description</i>	<i>Square Footage</i>	<i>Point Requirements</i>
New construction of single-unit dwellings	1,501—3,000	20
	3,001—5,000	40
	5,001 and up	60
Additions to a dwelling	500—1,000	15
	1,001—2,000	20
	2,001—3,000	30
	3,001 and up	45
Interior remodels of a dwelling	500—1,000	10
	1,001—2,000	15
	2,001—3,000	20
	3,001 and up	30
Multi-unit dwellings: final tenant finish of a unit in a multi-unit dwelling	1,001—2,000	10
	2,001—3,000	20
	3,001 and up	30

(b) A remodel that does not substantially remove the interior finish of the thermal envelope of the structure's conditioned space shall only meet fifty percent (50%) of the minimum green points required for the size of remodel.

(c) For new construction, one (1) green point is awarded for each HERS rating score that the residential structure scores below the HERS index rating requirement.

(d) The green point values apportioned in Subsections 18-14-50(b) and (c) only apply to those projects that do not require a HERS index rating.

(e) Each unit in a multi-unit dwelling shall be required to meet the green point requirements separately. (Ord. O-8 §1, 2009)

Sec. 18-14-60. Green point values.

(a) Site development. The following site developments shall be awarded green points as follows:

- (1) Landscaping.

- a. Organic soil amendments: 2 points.
- b. Xeriscape landscaping: up to 4 points awarded as follows:
 - 1. Reduce turf areas to a minimum: 1 point.
 - 2. All planting beds mulched with wood chips at least three (3) inches deep: 1 point.
 - 3. Appropriate use of xeric (low-water-demand) plants grouped by water needs: 1 point.
 - 4. Zoned irrigation system: 1 point.
- (2) Shading of hardscapes.
 - a. Preserve existing mature trees on site: up to 5 points (1 point per tree).
 - b. Plant shade trees: up to 5 points (1 point per tree).
- (3) Surface water management for permeable sites: up to 4 points awarded as follows:

Surface Water Table

<i>Percentage of Site That is Permeable</i>	<i>Points</i>
> or equal to 50%	1
> or equal to 75%	2
> or equal to 90%	3
100%	4

- (4) High-efficiency automatic irrigation: up to 2 points awarded as follows:
 - a. 75% efficiency rating: 1 point.
 - b. 95% efficiency rating: 2 points.
- (b) Building rehabilitation: up to 10 points awarded as follows:
 - (1) Rehabilitation or retrofitting of windows and doors: up to 3 points (0.5 point per window or door).
 - (2) Installation of appropriate interior or exterior storm system: up to 2 points (0.5 point per storm system).
 - (3) Designation as an individual historic landmark: 5 points.
- (c) Waste management.

(1) Reuse of existing building by incorporating portions of existing structures into remodel: up to 5 points awarded as follows:

- a. Save 50% of exterior walls (external sheathing and framing): 3 points.
- b. Save 75% of exterior walls (external sheathing and framing): 5 points.

(2) Remodels, additions and demolition: Up to 3 points will be awarded for waste diversion from additions, remodels or complete demolitions that exceed the mandatory waste diversion requirements of this Article. Points will be awarded as follows:

- a. 50% deconstruction material diverted from landfills: 2 points
- b. 65% deconstruction material diverted from landfills: 3 points

(3) New construction waste recycling: up to 3 points will be awarded on waste diversion beyond the mandatory waste diversion requirements of this Article as follows:

- a. 75% waste material diverted from landfills: 2 points.
- b. 85% waste material diverted from landfills: 3 points.

(d) Energy efficiency.

(1) Insulation. Points will be awarded as follows:

- a. Minimum R-19 cavity plus R-5 sheathing wall insulation: 2 points.
- b. Minimum R-49 ceiling: 2 points.
- c. Exterior minimum R-10 insulation installed for the full height of a basement or foundation wall: 2 points.
- d. Insulated pre-cast concrete foundation: 2 points.
- e. Insulated concrete forms: 2 points.

(2) Windows. Up to 10 points will be awarded for new or replacement windows installed as part of a remodel or an addition that meet the NFRC standards as follows:

- a. NFRC-rated windows with a maximum U Value of 0.34 or lower: Up to 5 points (0.5 point for each window).
- b. NFRC-rated windows with maximum SHGC of 0.55, excluding south-facing glass: Up to 5 points (0.5 points per window).

(3) Air sealing of an existing building. Points will be awarded based on the difference between a structure's preconstruction and post-construction HERS rating as follows:

- a. 10% net increase in initial HERS rating: 2 points.
 - b. No net increase in initial HERS rating: 3 points.
 - c. Decrease in initial HERS rating: 5 points.
- (4) HVAC. Points will be awarded as follows:
- a. HVAC commissioning to test for duct leakage, firing rate and refrigerant charge: 3 points.
 - b. Ground source heat pump: Up to 10 points awarded as follows:
 - 1. 30—39% calculations from a heating/cooling load bin analysis: 4 points.
 - 2. 40—49% calculations from a heating/cooling load bin analysis: 6 points.
 - 3. 50—59% calculations from a heating/cooling load bin analysis: 8 points.
 - 4. 60—69% calculations from a heating/cooling load bin analysis: 10 points.
 - c. Use of a direct vent space/water heating system: 2 points.
 - d. Use of zoned, hydronic radiant heating: 2 points.
 - e. Passive cooling: 2—5 points may be awarded as follows:
 - 1. Installation of exterior vertical shading devices for east- and west- facing glass: 1 point.
 - 2. Installation of reflective films or glass on east- and west- facing windows: 1 point.
 - 3. Installation of radiant, heat-reflective barriers in the attic space: 1 point.
 - 4. Landscaping that shades east- and west-facing glazing during the cooling season (June to September): 1 point.
 - 5. Installation of south-facing window overhangs sized to effectively shade the window during the cooling season (June to September): 1 point.
 - f. Installation of a whole-house fan: 2 points.
 - g. Use of evaporative cooling: 3 points.
- (5) Water heater.
- a. Installation of a tankless water heater: 2 points.
 - b. Installation of a point-of-use water heater: 2 points.

(6) Lighting, appliances and electricity.

a. Energy Star ALP that meet the following criteria shall be eligible for 5 points:

Energy Star Criteria

<i>Amount of Use</i>	<i>Area of Use</i>	<i>Percentage of Total Number of Fixtures</i>
High-use rooms	Kitchen, dining room, living room, family room, bathrooms, halls, stairways	50%
Medium/low-use rooms	Bedroom, den, office, basement, laundry room, garage, closets and all other rooms	25%
Outdoor	Outdoor lighting affixed to the structure or freestanding poles except for landscape and solar lighting	50%, including all flood lighting

b. Efficient light controls, including occupancy sensors, dimming controls and automatic daylight dimming controls: up to 2 points awarded as follows:

1. Four (4) control devices: 1 point.
2. Six (6) control devices: 2 points.

c. Energy-efficient appliances: Up to 6 points may be awarded for use of the following:

1. Energy Star-rated refrigerator: 2 points.
2. Energy Star-rated clothes washer: 2 points.
3. Energy Star-rated freezer: 1 point.
4. Energy Star-rated dishwasher: 1 point.

(e) Solar.

(1) Use of passive solar heating design, including elements of south-facing glazing, appropriate thermal mass and building overhangs, may be awarded up to 12 points as follows:

- a. 40—49% verifying calculations of the solar heat gain fraction of the heating energy use: 6 points.
 - b. 50—59% verifying calculations of the solar heat gain fraction of the heating energy use: 8 points.
 - c. 60—69% verifying calculations of the solar heat gain fraction of the heating energy use: 10 points.
 - d. >70% verifying calculations of the solar heat gain fraction of the heating energy use: 12 points.
- (2) Installation of a solar thermal domestic hot water system sized to provide at least 50% of the domestic hot water load: 8 points.
- (3) Installation of a solar thermal space heating or pool/spa system designed to offset a minimum of 15% of the annual space heating or pool or spa load: 3 points.
- (4) Pre-plumb the residential structure for solar thermal system retrofit: 2 points.
- (5) Installation of an active solar (photovoltaic) electric system that meets the electrical load of the structure may be awarded up to 12 points as follows:
- a. 30—39% solar electricity or equivalent to 2 kW system: 6 points.
 - b. 40—49% solar electricity or equivalent to a 3 kW system: 8 points.
 - c. 50—59% solar electricity or equivalent to a 4 kW system: 10 points.
 - d. >60% solar electricity or equivalent larger than 5 kW system: 12 points.
- (6) Pre-wire the residential structure for future solar electric installation retrofit: 2 points.
- (f) Water efficiency. Installation of high-efficiency (low-flow) fixtures may be awarded up to 12 points as follows:
- (1) 25% of all fixtures in the residential structure: 2 points.
 - (2) 50% of all fixtures in the residential structure: 4 points.
 - (3) 75% of all fixtures in the residential structure: 6 points.
- (g) Material-efficient framing and structure.
- (1) Use of advanced framing techniques may be awarded up to 10 points as follows:
 - a. Twenty-four-inch on-center framing: 2 points.
 - b. Insulated headers: 2 points.

- c. Energy-efficient roof trusses: 2 points.
- d. HVAC ducts within conditioned spaces: 2 points.
- e. Minimum twelve-inch roof overhangs: 2 points.

(2) Use of structural insulated panels may be awarded up to 8 points if insulated panels are used on:

- a. At least 50% of exterior walls: 5 points.
- b. At least 50% of exterior walls and roof: 8 points.

(3) Use of structural alternatives to wood may be awarded up to 8 points if such alternatives are used on:

- a. At least 50% of exterior walls: 5 points.
- b. At least 50% of exterior walls and roof: 8 points.

(h) Sustainable products.

(1) Use of FSC-certified tropical woods or not using tropical wood may be awarded up to 6 points as follows:

- a. Two (2) BF of FSC lumber per square foot of floor area (2 BF/square foot): 2 points.
- b. Three (3) BF of FSC lumber per square foot of floor area (3 BF/square foot): 4 points.
- c. 50% or more of dimensional lumber in total BF is FSC, excluding engineered wood products: 6 points.

(2) Use of environmentally preferred materials may be awarded up to 10 points, as follows:

- a. Recycled content: 2 points.
- b. Reclaimed: 2 points.
- c. Bio-based: 2 points.
- d. Agricultural residue: 2 points.
- e. Low or no VOC emissions: 2 points.

(3) A maximum of 1.5 points can be earned for any single component listed in the following Environmentally Preferable Products Chart, regardless of the amount by which a minimum performance threshold is exceeded. Additionally, 1 point may be awarded if the material is locally sourced.

Environmentally Preferable Products Chart

<i>Assembly</i>	<i>Component</i>	<i>Product Specification Types</i>		
		<i>Specifications</i>	<i>Emission Specifications</i>	<i>Local</i>
Exterior wall	Framing	FSC-certified		X
		Finger-jointed studs (vertical use only for structural components)		X
	Siding or masonry	Recycled content or FSC-certified		X
Floor	Flooring	Linoleum, cork, bamboo, FSC-certified or reclaimed wood, sealed concrete, recycled-content flooring or a combination of the same in 45% of dwelling floor area. A BONUS ½ point may be awarded if these materials are used in 90% of dwelling floor area or if the dwelling contains no carpet.		X
	Framing	FSC-certified		X
Foundation	Cement	Fly ash or slag as replacement for, not in addition to, cement content (min. 30%)		X
Interior wall	Framing	FSC-certified		X
		Finger-jointed, (vertical use only for structural components)		X
Interior walls and ceilings	Gypsum board	Recycled content		X
Interior walls and millwork	Paint		Comply with Green Seal Standard GS-11, Paints, First Edition, May 20, 1993	
	Wood finishes		VOC concentration of 150 gpl or less	

Environmentally Preferable Products Chart (Cont'd)

<i>Assembly</i>	<i>Component</i>	<i>Product Specification Types</i>		
		<i>Specifications</i>	<i>Emission Specifications</i>	<i>Local</i>
Landscape	Decking or patio material	Recycled-content or FSC-certified		X
Other	Cabinets	Recovered, recycled-content or FSC-certified	Wood and/or agrifiber products with no added urea-formaldehyde resins	X
	Counters	Recycled-content	Wood and/or agrifiber products with no added	

			urea-formaldehyde resins	
	Doors (not incl. garage)	Recycled-content or FSC-certified	Wood and/or agrifiber products with no added urea-formaldehyde resins	X
	Trim	Recycled-content or FSC-certified	Wood and/or agrifiber products with no added urea-formaldehyde resins	
	Adhesives and sealants		VOC concentrations of 70 gpl or less	
	Windows	Recycled-content or FSC-certified		X
Roof	Framing	FSC-certified		X
	Roofing	Recycled-content or vegetated (min. 200 sf)		X
Roof and floor and wall	Insulation	Recycled-content (min 20%)	Comply with DHS, "Practice for Testing of VOC's from Building Materials using Small Chambers"	X
Roof, floor, wall (2 out of 3)	Sheathing	Recycled-content or FSC-certified		X

(i) Indoor air quality.

- (1) Compliance with Energy Star's indoor air quality package requirements: 10 points.
- (2) Use of mechanical ventilation may be awarded up to 5 points as follows:
 - a. Installation of a kitchen exhaust fan: 1 point.
 - b. Installation of bath exhaust fans with timer or humidistat controls: 1 point.
 - c. Ventilation integrated in the HVAC system: 1 point.
 - d. Incorporating heat recovery ventilation: 2 points.
- (3) High-efficiency HVAC filter: 1 point.
- (4) Radon mitigation: Up to 2 points to be awarded as follows:
 - a. Passive system: 1 point.
 - b. Active system: 2 points.
- (5) Attached garage exhaust fan: 1 point.

(j) Homeowner information. 1 point will be awarded if an operations and maintenance binder, provided by the builder, is left in each dwelling of a residential structure for future occupants. Each binder must contain the following items:

- (1) A green points checklist;
- (2) A home energy audit or HERS certificate;
- (3) The manufacturer's installation manuals for all equipment, except for manuals required to be affixed to the equipment; and
- (4) Copies of operations and maintenance instructions for equipment installed in the home.

(k) Design process and innovation. The following points shall be awarded if the builder hires:

- (1) Green building consultants: 2 points.
- (2) An Energy Star builder: 1 point.

(l) Innovation. Up to 10 points may be awarded for products, designs or technologies which minimize the environmental impact of the residential structure in a tangible and demonstrable way beyond the methods outlined in the Green Points Program.

(m) Energy audit.

- (1) Completion of an energy audit: 1 point.
- (2) Compliance with recommendations resulting from an energy audit: 1 point per completed recommendation. (Ord. O-8 §1, 2009)

Sec. 18-14-70. Alteration or modification.

(a) The CBO may make reasonable accommodations to the requirements of the Green Build Program if the CBO finds that the strict application of this Article:

- (1) Creates practical difficulties in the construction of a new residential structure or in the construction of an addition or remodel that exceeds five hundred (500) square feet of an existing residential structure;
- (2) Requires an alteration to a residential structure that would have the potential effect of materially altering the historic integrity of that structure or adversely effect the historic integrity of a historic site;
- (3) Creates practical difficulties in meeting on-site renewable energy requirements due to physical difficulties associated with a lot or location of a residential structure;
- (4) Causes undue waste;
- (5) Prohibits the construction of affordable housing; or

(6) Is unnecessary because the purposes of this Article are otherwise met through alternative means.

(b) In assessing the request for a waiver of the mandatory requirements of the Green Build Program, the CBO shall, in consultation with an energy rater, determine what standards shall be required to ensure that the structure will meet the purposes of the Green Build Program. (Ord. O-8 §1, 2009)

Sec. 18-14-80. Regulations.

The Town Manager may make reasonable interpretive and administrative regulations to aid in implementing this Article. The Town Manager is authorized to adopt rules related to the award of green points that provide for equivalent benefits. The purpose of this grant of rulemaking authority is to allow the Town Manager to consider awarding green points for technology and products that were not contemplated at the time of the adoption of this Article, but that will provide benefits that are consistent with the purposes of this Article. (Ord. O-8 §1, 2009)

Sec. 18-14-90. Permit fee.

(a) Applicable permit fees for the installation of a renewable energy source system, such as solar electric, wind or geothermal, shall be exempt from Town permit fees.

(b) Applicable permit fees shall be reduced by an amount equal to the percentage of efficiency that a residential structure achieves in excess of the efficiency standards outlined in Subsection 18-14-40(a) of this Article. Under no circumstances will a reduction in the permit fee be awarded for excess efficiency under five percent (5%) or above twenty-five percent (25%). An energy rating shall be conducted by a HERS-certified energy rater. (Ord. O-8 §1, 2009)