

Town of _____

March 2008

Sustainable Building Ordinance

1. Purpose

The purpose of these regulations is to set forth the requirements for the Town's Sustainable Building Ordinance. The Chief Building Official has the discretion to render interpretations of this ordinance and to adopt policies and procedures in order to clarify the application of its provisions.

These regulations were adopted by The Town of _____ on _____

The intent of the Town of _____ Sustainable Building Program (SB Program) is to encourage cost effective and sustainable building methods to conserve fossil fuels, water and other natural resources, to promote the reuse and recycling of building materials and a reduction in solid waste, and to promote enhanced indoor health and amenity in residential buildings.

The Town of _____ SB Program uses a combination of mandatory and secondary (discretionary) requirements combined with a points based system to ensure that all residential buildings achieve or exceed a minimum level of efficiency without limiting or restricting the size, design, and type of construction of the buildings or the amenity level provided.

The Town of _____ SB Program consists of three interconnected parts.

1. Mandatory Measures.
2. Secondary Measures, measures that must be met or offset by measures of equal value from the Summit Sustainable Building Resource Guide.
3. The Summit Sustainable Building Resource Guide (the Resource Guide) (Appendix A). A guide that contains Sustainable recommendations, practices and point values.

2. Applicability

The provisions of this code shall apply to all new residential occupancy construction, alterations and additions, including but not limited to, one and two family dwellings, and multi-family buildings (a building containing three or more dwelling units). Further, the provisions of this code shall apply to all residential dwelling units associated with a mixed-use development. For alterations and additions all new work shall comply with the provisions of this code and for the purposes of calculating building size the entire building, existing and proposed will be used.

Buildings that meet the mandatory measures as required in Section 4 and the secondary measures in Sections 5, and 6 as is applicable to the project type are deemed to comply with this code.

Buildings that meet the mandatory measures in Section 4 but do not meet the secondary measures in Sections 5 and 6 as is applicable to the project type must offset the level of non-compliance by undertaking alternative measures and achieving points of equal value as identified in the Resource Guide.

Exception; Buildings that meet and receive certification under L.E.E.D, Green Globes or other approved Nationally recognized Green Building Programs may be deemed to meet the Town of _____ SB Program. Project specific approval is required for an alternate green building program certification.

3. Compliance

These regulations identify the specific requirements and measures for complying with the SB Program. A completed SB Checklist must be submitted with the appropriate building permit application.

Compliance with each measure described below or found in the Resource Guide will be demonstrated by one of two methods. If compliance is “Inspected,” Town staff will inspect these measures during typical inspections and shall require the submission of appropriate documentation to establish compliance. All materials and/or methods selected on the submitted Sustainable Building Checklist must be identified on the plans. If a measure is indicated as “Self-Certified,” the applicant’s signature on the SB Checklist serves as certification that a measure will be complied with as described in each section. The Town of _____ reserves the right to conduct follow-up inspections or compliance audits of self-certified measures prior to the issuance of a Certificate of Occupancy (CO). If for any reason and inspection or compliance audit fails, no C.O. will be issued until such time as those self-certified measures are corrected.

4. Mandatory Measures

The following measures are mandatory for all projects:

4.1 Insulation

- Exterior wall Insulation R-21
- Roof Ceiling Insulation R- 49
- Basement Wall Insulation R-10 (continuous) R13 (framing cavity)
- Conditioned crawl Space Wall (below grade) R-10 (continuous) R-13 (framing cavity)
- Conditioned Crawl Space Wall (above grade) R-19
- Under Slab Insulation R- 10
- Slab Edge Insulation R- 10, R-15 for heated slabs
- Floor (over crawl) Insulation R-30
- Cantilever Floor R-30

A reduction of the above minimum values that is permitted by the International Energy Conservation Code will be permitted by this code.

Compliance: Inspected (Insulation)

4.2 Fenestrations, (windows and doors)

Windows, maximum U- value of .35
Doors, maximum U- value of .35
Skylights and other fenestrations, maximum U- Value .60

Compliance: Inspected (Plan Check and Final) Inspector must be able to clearly identify the U-value and the window type.

4.3 Exterior opaque Doors

1 Exterior opaque door assembly to the house and one to the garage are exempt from the fenestrations U-Factor requirement. Over head garage doors are also exempt.

Compliance: Inspected (Final)

4.4 Energy efficient boiler or furnace

When a boiler is installed, it must meet a minimum 87% efficiency rating. For a forced air system, an 88% efficient system must be installed.

Compliance: Inspected (Final)

4.5 Water Heater

Any conventional (storage) water heater installed must meet a minimum .63 energy factor (EF) rating for gas and a minimum .93 energy factor (EF) rating for electric. If a tankless, indirect, solar, or heat pump water heater is installed, this mandatory requirement shall be deemed to be met.

Compliance: Inspected (Final)

4.6 Owners Manual

An owner's manual, which includes the operation instructions of all mechanical systems and energy saving systems installed in the house, shall be provided to the homeowner. Some systems require professional service and this should be noted. Not required for Multi Family.

Compliance: Inspected (Final)

5. Secondary Measures

Secondary measures for sustainable building must be provided for according to the specific units types and unit sizes outlined within this Section 5. In order to provide the designer and builder with flexibility, each secondary measure listed is also accompanied by an “offset value.” This offset value refers to the alternative methods and materials found in the Resource Guide, which may be used instead of the listed secondary measure.

5.1.1 Building Size; Single Family (Attached and Detached)

For every 50 square feet of conditioned space (including heated garage) over 3,000 square feet, a dwelling unit shall be required to earn one point which must be offset by applicable measures listed in the Resource Guide. Dwelling units of less than 3000 square feet will be credited with one point for every 50 square feet less than 3000 square feet.

5.1.2 Unit Size; Multi Family (3 or more units) or Residential units in mixed use developments.

For every 50 square feet of conditioned space within a dwelling unit over 1200 square feet, a building shall be required to earn one point, which must be offset by applicable measures listed in the Resource Guide.

5.1.3 Building Size Additions

For the purpose of calculating total building/unit size the existing plus the proposed building /unit size will be used.

A **single-family** building will be required to earn one point for every 50 square feet of new conditioned space, over a total building size of 3000 square feet, which must be offset according to applicable measures listed in the Resource Guide

A **multi family** unit will be required to earn one point for every 50 square feet of new conditioned space over a total unit size of 1200 square feet, which must be off set by applicable measures listed in the Resource Guide.

5.2 Renewable or Engineered Lumber

Install the following quantities of renewable/engineered lumber in each building: Multi Family and Mixed Use Buildings of non- combustible construction as defined by the Building Code are deemed to comply with this requirement.

Minimum of 60% of wood roof framing to be renewable or engineered lumber.

Minimum of 80% of wood floor framing to be renewable or engineered lumber.

Minimum 80% of wood beams and headers to be of renewable or engineered lumber.

The percentage area for floors and roofs will be measured as a percentage of the floor/roof area in plan view.

The percentage of beams and headers will be measured as a percentage of the total lineal length of all wood beams and headers.

Off set value, 1 point for every 10% less than required and 1 point credit for every 10% more than required

Compliance: Inspected (Plan Review / Framing)

5.3 Day Lighting

All Bathrooms and laundry rooms have windows and/or skylights to the outside or transoms to adjoining rooms, meeting natural light requirements of the Building Code. Separate toilet compartments within a bathroom are exempt from this requirement.

Offset value, 2 points for every bathroom and laundry room without exterior windows or transoms.

Compliance: Inspected (Plan Review / Final)

5.4 Air Stratification

All vaulted / raised ceiling areas greater than fifteen feet above the finished floor level are to include an air destratification fan or vent system.

Off set value, 5 points

Compliance: Inspected (Final)

5.5 Recycling

Install a recycling center in all kitchen areas. Provide a dedicated space in all garages for the storage of recycling bins.

Off set value, 3 points

Compliance: Inspected (Final)

5.6 Energy Star® rated appliances

Install an energy efficient dishwasher, refrigerator / freezer, and clothes washer. Energy efficient appliance designation is indicated on the required Department of Energy “Energy Star®” label.

Off set value, 1 point for each appliance not rated or not provided.

Compliance: Inspected (Plan Review / Final)

6. Intensive Energy Use Amenities

Any new residential occupancy construction, alterations and additions, and new construction, including but not limited to, one and two family dwellings, and multi-family dwellings that propose any of the following amenities must offset the energy usage in the following amounts:

6.1 Outdoor, gas fire pits/fire places and stoves, (excluding grills)

Off set value, 5 points for appliance.

Compliance: Inspected (Plan Review / Final)

6.2 Hot tubs, spa pools and swimming pools.

Off set value, 5 points for every 50 square feet, or part thereof, of hot tub, spa, or pool water surface area.

Compliance: Inspected (Plan Review / Final)

6.3 Outdoors heated surfaces including exterior drives, pathways patios, and garage aprons, etc.

Off set value, 2 points for every 100 sq/ft, or part thereof, of out door heated surface.

Compliance: Inspected (Plan Review / Final)

6.4 Air Conditioning

Off set value 1 point for every 200 sq/ft or part thereof, of air conditioned space

Compliance: Inspected (Plan Review / Final)