



• DESIGN • REVIEW • GUIDE •

Energy Efficient Construction

Burlington is well known as a community with a high quality of life, small and cohesive neighborhoods, a vibrant downtown and waterfront – all within a spectacular setting on the shores of Lake Champlain. This deserving reputation is due in part to the City’s small size, entrepreneurial spirit, civic-minded citizens and activist government. One of the many factors that makes Burlington such a great place to live, work and visit is the community’s attention to detail, and respect for its setting, heritage and quality urban design.

Burlington’s Design Review process strives to protect the city’s unique qualities and strong sense of place by carrying out citywide development and design objectives. The purpose of this *Design Review Guide* is to help applicants in preparing projects to be reviewed by the City’s Design Advisory Board and Development Review Board. Through materials such as this, the Department of Planning & Zoning seeks to make information available well before the final design of a project, saving the applicant and the city, time and money.

Did you know that the initial cost of building construction represents only 1% to 2% of the total cost to build, own and operate a building over a thirty-year life? In addition, buildings are major energy users: the energy needed to heat, cool, light and ventilate buildings represents over 35% of the total national energy usage and 60% of total electricity production.

A well-planned construction project - including careful attention to energy efficiency and worker comfort - can pay dividends over time. Research indicates that buildings with energy efficient features like day-lighting and good ventilation can improve people’s attitudes and productivity. Even slight gains in productivity will more than pay for the incremental cost of energy efficient design.

The City of Burlington is committed to promoting energy efficiency in buildings throughout the City. Energy-efficient buildings:

- benefit the owners and tenants by lowering costs,
- improve the lives of citizens by saving consumers money,
- lessen our demand for fossil fuels,
- decrease the need for new power generation,
- reduce pollution and,
- strengthen the local, state and national economy.



It is much cheaper to build efficiency into a new building than to retrofit an existing building later. Burlington’s “Energy Efficiency Guidelines for New Construction” describes a minimum level of energy efficiency that must be designed into all new construction.



ENERGY EFFICIENT CONSTRUCTION GUIDELINES

In 1991 the Burlington City Council established an ordinance that requires that all commercial and residential construction and applicable new equipment be in compliance with the “Guidelines for Energy Efficient Construction for the City of Burlington, Vermont”. (Art. VI, Energy Conservation, Sec. 8, Burlington Code of Ordinances)

Any new building, addition, renovation or equipment replacement project must meet the energy efficiency criteria of the Guidelines. The Guidelines adopt a national standard as the model energy code for Burlington. This standard is amended to suit Burlington’s climate and special needs. The Guidelines contain criteria for the building’s roof, exterior walls, and floors/ foundations; and the mechanical, lighting, and power systems.

Residential Construction

All residential construction must comply with the current edition of the Vermont Residential Building Energy Standard (RBES) and Sec. 21 V.S.A. § 266 of Vermont law as referenced in the Guidelines. The Guidelines amend RBES in Burlington to maintain application to renovation and any covered building component of RBES regardless of size and scope.

As is the case with all other development in Burlington, the Inspection Division of the Dept of Public Works (DPW) is the enforcement authority for compliance with the Guidelines. However, the BED Energy Services staff helps to administer the Guidelines and assists the Inspection Division and applicants with Guidelines applicability, interpretation and construction plan review. The Inspection Division will typically require a letter of approval from BED prior to issuing a building permit.



STEPS TO COMPLIANCE:

- Obtain a copy of the Guidelines by visiting www.burlingtonelectric.com or calling BED, Energy Services at 802-865-7342.
- Contact the DPW Inspection Division (863-9094) and BED Energy Services staff early in your planning process to discuss the project scope and compliance with the Energy Efficiency Guidelines.
- Request free consultation from BED Energy Services staff for ideas to best meet the Guidelines and cost effective design improvements that go beyond the Guidelines.
- Provide a set of design documents to BED Energy Services staff and request a Guidelines plan review and a letter of approval for DPW. This is a free service and BED will act quickly to review your project.
- BED will advise you of any building components that do not meet the Guidelines and how to make necessary design improvements.



FINANCIAL INCENTIVES

BED has a long history in helping owners, builders and developers incorporate energy efficient equipment, systems and techniques. BED will work with you to produce innovative, creative building designs that are efficient, cost effective and durable.

If you're planning a new construction project or building renovation, contact BED for assistance from permitting through inspection and occupancy. BED offers:

- technical assistance with building design and Guidelines compliance
- funding for your design team to evaluate various building system options exceeding the Guidelines
- funding assistance for third-party commissioning
- cash incentives for highly efficient equipment and systems.

BED will tailor its program to meet your individual needs - from incremental improvements in energy efficient equipment to advanced building designs incorporating energy efficiency, renewable energy systems and green building design.

ADDITIONAL INFORMATION

assistance with Burlington's Energy Efficiency Guidelines

- **Burlington Electric Dept.**

585 Pine St., Burlington, VT 05401

BED Residential Services - 802.865.7337

BED Commercial Services - 802.865.7342

www.burlingtonelectric.com

- **Energy Code Assistance Center**

255 South Champlain St., Burlington, VT 05401

888.373.2255

general information regarding city zoning permits

- **Burlington Dept. of Planning & Zoning**

149 Church St., Burlington, VT 05401

802.865.7188 www.ci.burlington.vt.us/planning/

general information regarding city building permits

- **Burlington Dept. of Public Works, Inspection Services**

645 Pine St., Burlington, VT 05401

802.863.9094 www.dpw.ci.burlington.vt.us/

In accordance with the Americans with Disabilities Act (ADA) of 1992, it is the policy of the City of Burlington not to discriminate on the basis of disability in offering benefits, services, programs, and activities.

This information can be made available in alternative media forms for people with disabilities. Reasonable accommodation shall be made upon request to insure that all benefits, services, programs, and activities offered by the City are fully accessible to all individuals. For information, call 865-7188 (865-7144 TTY). EOE.

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