



Environmental Guidelines

*for all Tenant & Common Area Fit Ups,
Repairs, Maintenance, and Upgrades*

Environmental Guidelines for Building Improvements, Equipment Purchases, and Building Maintenance

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I. Purpose & Goals

The purpose of this document is to provide environmental guidelines for tenants in making building improvements, in purchasing equipment, and in operating and maintaining buildings in the Main Street Landing Project. The buildings have been designed initially to provide a healthy working environment for building users while minimizing negative impacts on the environment. Later building improvements, equipment purchases, and maintenance procedures by owners and tenants can either improve or hinder the buildings performance, occupant's health and environmental impacts caused by future use.

The following are the intended benefits for use of these environmental guidelines:

1. Buildings with a healthier environment provide major improvements in the health, satisfaction and productivity of occupants.
2. Operating buildings with consistent standards and practices, all building users are insured of a healthy environment. This is not typically available in other buildings.
3. While all measures individually may not save money in the short run, when combined together, savings typically can be found in the long run. Many measures will produce savings or no increased costs immediately.
4. Poor indoor air quality causes serious economic impact seen through employee sick days and poor performance.
5. Market preference for environmental quality has been demonstrated nationally. This alternative has not typically been available in the real estate industry which provides a unique and growing opportunity. In Vermont where environmental concerns are stronger than elsewhere, there is a stronger opportunity in finding tenants, and in adding to the long-term value of the buildings.

II. Tenant & Common Area Fit Up Requirements and Recommendations

The following measures are required in any building improvements or maintenance:

a. Overall

Environmental Guidelines: All tenants shall read and keep a copy of the Main Street Landing Environmental Guidelines prepared by William Maclay Architects & Planners. When improvements are undertaken, these same guidelines should be given to designers and contractors.

A copy of this document and Environmental Guidelines will be included with every lease agreement.

b. Materials

- i. Carpets with latex backing or which contain the chemical 4PC shall never be used. Main Street Landing needs to approve all carpeting used in the project.

- ii. Flooring adhesives: Carpet or sheet flooring adhesives with volatile organic compounds (VOC's) shall not be used. Latex products shall be used. Where adhesives are applied to concrete surfaces extra care will be necessary to insure proper adhesion.
- iii. Particle board with formaldehyde will be eliminated. One product that is non-formaldehyde particle board is Medite II.
- iv. Paints with Volatile Organic Compounds (VOC's) shall not be used. Either Glidden VOC free or other manufacturers' VOC free paints shall be used.
- v. Sealants emitting significant VOC's shall be eliminated. Water based sealers are required.
- vi. All materials must require MSDS sheets, and must be approved by Main Street Landing prior to use or application.
- vii. Use of recycled materials with a high level of post consumer or post industrial recycled materials is recommended. Main Street Landing has a list of recommended materials as supplied by William Maclay Architects and Planners.
- viii. Use of durable materials is required. Long lasting materials that do not require frequent replacement are recommended.
- ix. Use of recyclable materials that are easy to recycle when their useful life has ended is required.
- x. Use of local materials of local origin are recommended. Local is Burlington, Chittenden County, Vermont. Materials produced further than 500 miles from Burlington are not encouraged.
- xi. Use of materials of low embodied energy which minimize the consumption of energy in extraction, manufacturing, and transportation are recommended.

c. Energy Conservation

- i. Connected interior lighting loads shall not exceed one watt per square foot with thirty foot-candles ambient lighting levels. This requires the use of energy efficient lighting.
- ii. Plug loads shall not exceed two watts per square foot. This means purchasing energy efficient computers and other equipment.
- iii. Any renovations, alterations, or additions to the building shell must meet or exceed the insulation levels of the original construction.
- iv. Maximum use of natural daylight using operable windows will reduce air conditioning loads and make more habitable space for building occupants.
- v. Keeping ambient lighting levels around thirty foot-candles reduces energy and is best for spaces where computers are used. Studies have also indicated that the varying light levels of natural light reduces eye strain and increases satisfaction and productivity. It also helps to improve "mood". Maximum benefit of natural daylight can be gained by open space planning and by using interior glass where room separation is desired so that light can penetrate from spaces on outside walls into interior of the building.
- vi. Use of lighting controls such as occupancy sensors to automatically turn off lights when rooms are unoccupied can save substantial amounts of energy and should be incorporated where feasible.
- vii. Use of light colored paint to minimize the use of artificial lighting. Lighter colored wall, ceiling, and floor surfaces reduces the amount of light needed and generally enhances the work and living environment.

III. Equipment Requirements and Recommendations

Equipment varies considerably in energy performance and can have a substantial impact on building energy consumption as well as in the ability of the mechanical systems to perform adequately. Specifically, less energy efficient equipment will lead to increased loads which may overburden the air conditioning systems and require expansion of the air conditioning systems at major expense to the building owners and tenants. This is true of all equipment such as computers, copying machines, fax machines, etc. It is recommended that electromagnetic fields caused by equipment (particularly computers) be researched prior to equipment purchases. Although most computer manufacturers have reduced electromagnetic fields in their equipment, there still is a wide variation in strength and potential health impacts.

IV. Operation and Maintenance Procedures

Chemicals used in processing, cleaning, and maintaining equipment and the building can be toxic and harmful to occupants. In all instances, there are currently alternatives available. Toxic substances are forbidden in any of Main Street Landing's buildings. For instance for commonly used cleaning agents, there are cost effective alternatives that can be substituted. Seventh Generation or Swish Enviroline non-toxic "green" cleaning products are recommended and used by Main Street Landing's professional maintenance staff.

V. Implementation, Adoption, and Amendments

In order to maintain a high level of environmental quality in the buildings, it is necessary to have a high level of support from Main Street Landing, the tenants, users, clients, suppliers, and sub-contractors. It is recommended that Main Street Landing keep a list of recommended practices and commonly used building maintenance products to assist users. Because innovation and technological change is inevitable, it is recommended that these guidelines be reviewed and updated and reapproved on a regular basis, such as every two years.