**Topic:** Development Standards; Green Buildings &

Energy Efficiency

**Resource Type:** Regulations **State:** Indiana

**Jurisdiction Type:** Municipal

**Municipality:** City of Bloomington

**Year** (adopted, written, etc.): 2009

**Community Type – applicable to:** Urban; Suburban

Title: City of Bloomington Green Building

Program

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#### Abstract

In the Municipal Code contains a Green Building Program, Chapter 2.29. The purpose of this program is to further the city's commitment to environmental, economic and social stewardship, yield cost savings to city taxpayers through reduced operating costs, provide healthy work environments for staff and visitors, reduce local greenhouse gas emissions, and prepare for a current period of reduced supply of oil and natural gas. The program adopts LEED certification.

### Resource

## 2.29.010 Establishment and purpose.

The City of Bloomington hereby establishes a "Green Building Program" as part of the Bloomington Municipal Code. The purpose of this program is to: further the city's commitment to environmental, economic and social stewardship; yield cost savings to city taxpayers through reduced operating costs; provide healthy work environments for staff and visitors; reduce local greenhouse gas emissions; and prepare for a current period of reduced supply of oil and natural gas. In furtherance of these purposes, the program adopts practices specified by the U.S. Green Building Council's LEED® (Leadership in Energy and Environmental Design) certification process.

(Ord. No. 09-04, § I, 3-25-2009)

#### 2.29.020 Definitions.

The following terms shall be understood according to the definitions below:

"City of Bloomington Building" means a building owned by the Board of Parks Commissioners, the Board of Public Works, the City Utilities Department, the Redevelopment Commission, or the Bloomington Municipal Facilities Corporation.

- (a)"Existing" when modifying the term "City of Bloomington Building" shall mean a building owned by the city at the time of the effective date of the ordinance from which this chapter derives.
- (b)"New" when used to modify the term "City of Bloomington Building" shall mean a building built or commissioned to be built by the city after the effective date of the ordinance.
- (c)"Subsequently Acquired" when modifying the term "City of Bloomington Building" shall mean an extant building purchased by the city after the effective date of the ordinance.
- (d)"Occupiable" shall mean a building or enclosed space designed for human occupancy in which occupants are engaged in labor or individuals congregate for amusement, educational or similar purposes and which is equipped with means of egress, light and ventilation.

"LEED® (Leadership in Energy and Environmental Design)" means a flexible, consensus-based, rating system developed by the United States Green Building Council for evaluating the performance of a building. It is based on existing, proven technology and evaluates environmental performance from a "whole building" perspective. LEED is a self-certifying system designed for rating new and existing commercial, institutional and multi-family residential buildings. It outlines prerequisites and credits in five categories: sustainable site planning, energy efficiency, materials selection, indoor environmental quality and water conservation. Based on these categories, LEED offers four rating levels: Certified, Silver, Gold and Platinum. LEED-NC is the rating system for new construction and major renovations and LEED-EB:0&M is the rating system for the operation and maintenance of existing buildings.

"Cost-Benefit Analysis" means a method of comparing the costs and benefits of bringing an existing or subsequently-acquired City of Bloomington building up to LEED Silver with the costs and benefits of not bringing such building up to LEED Silver standards. In discerning costs and benefits, the city's analysis shall include, but not be limited to, the following: planning, design, construction, operations, maintenance, registration fees, energy costs, peak power demand, air pollutants (NOx, SOx, particulates and CO2), water, waste, worker health and productivity. Such analysis should reflect both current and future costs and

benefits and should result in a monetized value representing the present value of a LEED Silver building's future financial benefits less the cost.

"Major Renovation" means any alteration that:

- (a) affects more than 50% of the total building floor area; or
- (b) an addition that increases the total building floor area by more than 50%; or
- (c) causes the relocation of more than 50% of regular building occupants; or
- (d) involves replacement of heating, ventilation or air-conditioning (HVAC) systems.

"Payback Period" means the amount of time it takes for the initial investment in green building options to be recouped in cost savings through reduced energy and water use, reduced waste and other reduced costs as described in the definition of "cost-benefit" above.

(Ord. No. 09-04, § I, 3-25-2009)

# 2.29.030 Applicability.

Unless exempted per <u>2.29.050</u>, the Green Building Program shall apply to the following:

- (a) New Buildings. All new occupiable City of Bloomington buildings shall be designed, contracted and built to achieve LEED-NC Silver certification level, at minimum. The city shall strive for a higher level of LEED certification (either Gold or Platinum) where project resources and conditions permit.
- (b) Existing and Subsequently-Acquired City of Bloomington Buildings.
- (1) Major Renovations. All major renovations to existing and subsequently-acquired occupiable City of Bloomington buildings shall be designed, contracted and built to achieve LEED-NC Silver certification standards in the renovated portion of the building. The city shall strive for a higher level of LEED certification (either Gold or Platinum) where project resources and conditions permit.
- (2) Other Renovations. All renovations to existing and subsequently acquired occupiable City of Bloomington buildings which do not constitute "major renovation"

per <u>2.29.020</u> shall aim to achieve LEED-EB:0&M Silver certification standards where project resources and conditions permit.

- (c) LEED Certification. After registering the project with the U.S. Green Building Council, the city shall adhere to the version of LEED in effect at the time of registration, regardless of any new LEED version that may be released subsequent to registration but prior to project completion.
- (d) Leased Space. In the event the city enters into a new lease agreement or a renewal of lease agreement for occupiable space, the city shall lease space in buildings that are LEED-certified, where resources and conditions permit.

(Ord. No. 09-04, § I, 3-25-2009)

### 2.29.040 Evaluation and upgrade of existing and subsequently-acquired buildings.

- (a) Unless otherwise exempt per <u>2.29.050</u> below or subject to the standards of <u>2.29.030(a)</u> or (b) above, all occupiable city buildings should eventually be brought up to at least LEED EB:O&M Silver standards. In the interest of determining the extent and timing by which occupiable City buildings should be upgraded to LEED standards, the city shall conduct an evaluation of all existing and subsequently-acquired occupiable city buildings. The evaluation shall consist of two phases.
- (1) Phase I Basic Inventory: During Phase I, the city shall conduct a limited study of all existing buildings to discern which buildings qualify for Phase II of the evaluation process.
- (A) During Phase I, the city shall collect data on existing city buildings, including, but not limited to:
- (i) age of the building;
- (ii) number of employees who occupy the building daily;
- (iii) number of public who visit the building daily;
- (iv) existing utility bills;
- (v) number of square feet; and
- (vi) building type

- (B) Phase I shall be completed within one year after the adoption of the ordinance from which this chapter derives.
- (2) Phase II Analysis: During Phase II, the city shall examine systems that effect building performance.
- (A) During Phase II, the city's analysis shall include, but not be limited to the efficiency of the following building features:
- (i) the building envelope, including the walls, windows, roofs and doors;
- (ii) the heating, ventilation and air conditioning system (HVAC) including all fans, boilers, and compressors and the energy that they use;
- (iii) the lighting systems including the amount of energy used per square foot for lighting, and the amount of time that the light is on versus the amount of time it is needed; and
- (iv) the interior finish systems, their maintenance and the impact they may have on the interior environment.
- (B) After the foregoing systems are examined, the city shall perform a cost-benefit analysis of the costs of bringing each building up to LEED Silver. In the interest of maintaining close control of the cost, the city shall pursue the LEED Silver standard only when the payback period is no more than 10 years. In the event the cost-benefit analysis shows the anticipated payback to be more than 10 years, the persons responsible for the project shall recommend to the board having authority over the project which level of LEED certification is appropriate for that particular project. If no level of LEED certification is possible, then the project under consideration shall implement as many components of the LEED program as feasible.
- (C) For all existing buildings, Phase II shall be completed by December 31, 2020. Starting January 1, 2011, at least one building per year shall be subjected to Phase II analysis.
- (b) For all existing occupiable City of Bloomington buildings whose payback period does not exceed 10 years per Phase II above, the city shall complete the following by December 31, 2022: 1) register the building with the United States Green Building Council under the LEED-EB:OM program and 2) and implement operational improvements and equipment upgrades necessary to obtain certification. The city will then continue with the LEED certification process. The December 31, 2022 deadline shall be subject to available funds.

(c) Subsequently-acquired occupiable City of Bloomington buildings obtained after the passage of the ordinance from which this chapter derives shall be subject to the evaluative process outlined in 2.29.040(a) if said building will not immediately undergo major renovation as defined in section 2.29.020 above. Where a subsequently-acquired building does not undergo immediate major renovation, and where said building is not exempt per 2.29.050 below, the city shall undertake Phase I and Phase II evaluations as described above and complete these evaluations within three years of acquiring the building.

(Ord. No. 09-04, § I, 3-25-2009)

# **2.29.050 Exemptions.**

- (a) The following building types shall be exempt from the requirements of this Chapter:
- (1) industrial with limited office space;
- (2) industrial with no office space;
- (3) seasonal use only;
- (4) space without a heating, ventilation and air conditioning (HVAC) system;
- (5) conditioned storage space; and
- (6) fire stations
- (b) The requirements of this Chapter may be waived in an emergency situation which endangers public health or safety. In such case, the city department operating under this subsection shall report to the City Council the emergency that prevented compliance with this Chapter within ten business days. Under these circumstances, a reasonable effort must still be made to maximize the number of LEED points attained.
- (c) If, due to specific circumstances, compliance with this Chapter would defeat the intent of the Green Building Program or create an unreasonable burden on the city department operating under this Chapter, the department may request a waiver from the requirements of this Chapter from the Common Council. The Council may grant a waiver from the requirements of this Chapter upon a finding that the city department requesting the waiver has:
- (1) documented the circumstances and burdens at issue; and

(2) developed a reasonable plan to maximize the number of LEED points attainable.

(Ord. No. 09-04, § I, 3-25-2009)

# 2.29.060 Annual report.

The persons responsible for administering this Chapter shall annually report to the Common Council on the progress of the implementation of the Green Building Program.

(Ord. No. 09-04, § I, 3-25-2009)

## 2.29.070 Encouragement of green building strategies in private development.

Although the requirements of this chapter do not extend to private development projects, the City of Bloomington promotes the use of green building strategies in private development projects by offering a number of resources and incentives. Development projects are encouraged to take advantage of the Green Development Incentives and Sustainable Development Incentives found in the City's Unified Development Ordinance and to consult the City of Bloomington Environmental Commission's resource website for Green Building Methods.

(Ord. No. 09-04, § I, 3-25-2009)