



National Ready Mixed Concrete Association Position Statement on Green Building Rating Systems

What is a green building?

"Green" or "sustainable" buildings use key resources like energy, water, materials, and land more efficiently than buildings that are just built to code. They also tend to create healthier work, learning, and living environments, with more natural light and better air quality, and typically contribute to improved employee and student health, comfort, and productivity.

NRMCA encourages adoption of green building.

The built environment plays a substantial role in environmental health, human welfare and the economic stability of the United States. Building operation accounts for 40% of U.S. energy use and the waste from construction debris makes up over 35% of all non-industrial waste. Building operations alone contribute over 38% of the U.S.'s carbon dioxide emissions and over 12% of its water consumption. The use of concrete in the built environment can aid in the reduction of energy consumption, carbon dioxide emissions and construction waste of buildings.

NRMCA believes there are multiple benefits to green building.

Lifecycle Savings – A 2003 study conducted for the California Sustainable Building Task Force shows that green building construction costs approximately 2% more compared to conventional buildings. The green building will yield lifecycle savings of more than ten times the initial investment, or 20% of total construction costs. [*The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force*. Principal author: Greg Kats of Capital E. 2003]

Productivity and Health – A green building should not only be aesthetically pleasing but should provide enhanced indoor air quality; and improve employee health, comfort and productivity. Studies have shown that worker productivity have increased from 1-10% when they are employed in a green building. Worker health has improved and employee absenteeism was cut by 40%. [*The Costs and Financial Benefits of Green Buildings: A Report to California's Sustainable Building Task Force*. Principal author: Greg Kats of Capital E. 2003]

Community Advancement– Community leaders can send a strong message about their commitment to their conserving natural resources by choosing to build green. For business owners, building green is a way of demonstrating social consciousness by minimizing pollutants and reducing demand on local energy and water infrastructures.

NRMCA urges states and local jurisdictions to adopt minimum green building rating standards for private and public buildings.

Several green building ratings systems are currently available to the communities to aid in their sustainable development practices. These ratings systems include, but are not limited to, the Leadership in Environmental Energy Design (LEED), the Green Globes, and the Energy Star green rating system. Concrete has been used successfully in each of these rating systems to achieve the overall goal of providing the community with a sustainable building. The green rating systems do not, however, specify concrete as the material of choice to achieve the sustainable goal nor do the organizations representing the systems

provide information on the historic use of concrete in their certified buildings. Therefore, it is unclear if the adoption of the green building standards will increase the market share of concrete in the jurisdictions or states where the standards are adopted. However, the benefits of a sustainable built environment are clear for all persons of the community and will provide an enhanced lifestyle for future generations.

NRMCA believes that all green rating systems provide a benefit to the community.

The LEED green rating system is provided as an example in this ordinance, however, comparable green rating systems may be used if they provide similar environmentally friendly attributes. It is not the intention of NRMCA to limit the use of green ratings systems to the LEED program. If programs of similar rigor are available or developed over time, it is the intention to allow for their adoption with this ordinance.

About NRMCA

Founded in 1930, the National Ready Mixed Concrete Association is the leading industry advocate. Our mission is to provide exceptional value for our members by responsibly representing and serving the entire ready mixed concrete through leadership, promotion, education, and partnering to ensure ready mixed concrete is the building material of choice.

A model green building adoption ordinance is attached. This model could be used by NRMCA Affiliates, NRMCA members or others interested in supporting sustainable green buildings. For additional information on concrete's role in sustainability visit www.nrmca.org or contact Erin Ashley, NRMCA Director of Codes and Sustainability, at (410) 796-7975 or EAshley@nrmca.org.

NOTES: The following is a model green building ordinance that supports the concept of a state or local jurisdiction adopting a minimum green building rating system. This is simply one model. State legislatures would need to add particular clauses dealing with enforcement and administration but this language could form the framework for a state ordinance.

CITY/JURISDICTION OF _____
CITY, STATE
ORDINANCE NO. XXX

AN ORDINANCE TO ADOPT SUSTAINABLE BUILDING STANDARDS
FOR CONSTRUCTION IN THE CITY/JURISDICTION OF _____

THE COUNTY/JURISDICTION OF _____ DO ORDAIN AS FOLLOWS:

SECTION 1. PURPOSE

For the purpose of requiring certain non-residential buildings and certain multi-family residential buildings to achieve certain standards for energy efficiency and environmental design; requiring certain applicants for building permits to submit certain plans relating to energy efficiency and environmental design; requiring that compliance with certain energy efficiency and environmental design standards be a condition of certain building permits and occupancy permits; requiring certain regulations to implement these requirements; defining certain terms; providing for a special effective date; and generally relating to the construction of buildings.

The green building measures applied to the design, construction, and maintenance of buildings would achieve the following goals:

1. To encourage resource conservation;
2. To reduce the waste generated by construction projects;
3. To increase energy efficiency; and
4. To promote the health and productivity of residents, workers, and visitors to the City/Jurisdiction.

SECTION 2. ADOPTION OF SUSTAINABILITY STANDARDS

A. Adoption of codes by reference.

The "Leadership in Energy & Environmental Design Rating System for New Construction & Major Renovations (LEED - NC)", Version 2.2 published by the U.S. Green Building Council ("USGBC") are hereby adopted by reference.

SECTION 3. DEFINITIONS

- A. General: In this chapter, the following terms have the meanings indicated.
- B. City Building: Any covered building or which the city or jurisdiction finances at least 25% of the cost of construction for a newly constructed building or the cost of modification for a building that is extensively modified.
- C. Covered Building: A newly constructed or extensively modified non-residential or multi-family residential building that has or will have at least 10,000 square feet of gross floor area.
- D. Extensively Modified: A structural modification that alters more than 50% of a building's gross floor area as indicated on the application for a building permit.
 1. Extensively modified does not include any modification that is limited to 1 or more of the following building systems –
 - Mechanical
 - Electrical

- Plumbing
 - HVAC
 - Fire Protection
- E. Green Building Council: The Green Building Council, an organization that has developed and published the LEED rating system to measure the energy and environmental performance of a building.
- F. LEED: The Leadership in Energy and Environmental Design rating system developed by the Green Building Council.
- G. LEED Rating System: The particular LEED rating system that applies to a covered building, as specified in the regulations adopted under this chapter.
- H. Multi-family residential building: Any multi-family residential or mixed used building that is taller than 3 stories or has more than five units.
- I. Newly Constructed: New stand-alone building or an addition to an existing building.
- J. Non-residential Building: Building not used as a dwelling

Section 4. APPLICABILITY

A. Required Elements.

1. Every City Building Must Achieve:

- A Silver level rating in the appropriate LEED rating system, as certified by the Green Building Council;
- A Silver level rating in the appropriate LEED rating system, as verified by the building official; or
- Energy and environmental design standards that the building official identifies as equivalent to a silver-level rating in the appropriate LEED rating system, as verified by the building official or a qualified person approved by the building official.

2. Every other Covered Building must achieve:

- A certified level rating in the appropriate LEED rating system, as certified by the Green Building Council;
- A certified level rating in the appropriate LEED rating system, as verified by the building official; or
- Energy and environmental design standards that the building official identifies as equivalent to a certified-level rating in the appropriate LEED rating system, as verified by the building official or a qualified person approved by the building official.

NOTES: GREEN BUILDING TAX CREDIT: In addition to, or in replacement of, the requirement for LEED certification of privately owned buildings, local jurisdictions should consider offering building owners a green building tax credit as additional incentive to build green. Tax credits could be made available to a taxpayer for either the construction of a covered building meeting the certified level rating in the appropriate LEED rating system or the rehabilitation of a covered building, which is not a green building, into a certified level LEED building; for the construction or rehabilitation of a base building, which is not a green base building, into a certified level LEED building; or, for the construction or rehabilitation of a tenant space, which is not green tenant space, into certified level LEED tenant space.

Examples of tax credits offered in some jurisdictions are:

Maryland enacted 5/26/04, [HB 804](#) which allows the governing body of a county or municipal corporation to grant a property tax credit against county/municipal property tax imposed on a high performance building that meets or exceeds the LEED Silver rating requirements. See Maryland Statutes § 9-242.

Massachusetts [S 1733](#) establishes a green building income tax credit for buildings that are designed and operated in accordance with standards informed by the LEED rating system.

New Jersey introduced in the 2003 and 2004 Legislatures, [S 2502](#) / A 1356, and is perhaps the most innovative and comprehensive plan to address urban design and environment issues. Entitled the “Smart Growth Tax Credit Act,” this bill provides tax incentives for developers and owners who design and build residential and mixed-use developments, which meet specific “smart growth” and “green building” criteria. These criteria ensure that participating developments are appropriately located, resource-efficient, pedestrian-friendly, adequately serviced by mass transit, and built using materials and technologies that minimize environmental impacts and provide a healthier built environment. To be a “green building,” buildings must comply with either LEED Green Building standards or specific green building standards set forth in the bill.

Oregon, in 2001, enacted a law establishing a sustainable building tax credit. The [Business Energy Tax Credit \(BETC\)](#), Oregon Revised Statutes § 469, is offered to businesses that build sustainable commercial buildings in accordance with the LEED Green Building Rating System Silver rating.

3. EXCEPTIONS.

- A. For any building for which all applications for all necessary building permits were filed before INSERT DATE, any later addition to that building need only meet the requirements of section 4.A.2 or if the addition would:
 - 1. Increase the building’s land coverage by 100% or more, and
 - 2. Increase the building’s gross floor are by at least 10,000 sq. ft.

4. AND BE IT FURTHER ORDAINED.

- A. All ordinances or parts of ordinances inconsistent herewith are hereby repealed to the extent of such inconsistency.
- B. If any portion of this ordinance shall be determined to be invalid; such determination shall not affect the validity of the remaining portions of said ordinance.
- C. This ordinance shall take effect one year from the day it is enacted.