

COUNTY OF RIVERSIDE, CALIFORNIA
BOARD OF SUPERVISORS POLICY

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I. **PURPOSE**

It is the intention of this policy to establish the use of sustainable building practices in the design of county capital improvement projects in order to reduce pollution, protect natural resources, enhance asset value, optimize building performance, and create healthier workplaces for county employees.

Sustainable building design (sometimes referred to as “green building design”) will help to reduce operating costs associated with heating, ventilation and air conditioning (HVAC) systems, lighting systems, municipal water consumption, storm water management, solid waste disposal, and recycling.

Sustainable buildings are designed to use as little energy as possible, with minimal or no use of fossil fuels. By providing these types of buildings, the county’s utility costs will be demonstrably lower since the largest building operating costs are incurred through the use of artificial lighting systems and HVAC systems (for both heating and cooling cycles).

There is no single technique for designing and building a sustainable building, but sustainable building projects frequently include environment-friendly features, such as:

- Preservation of natural vegetation
- Conservation of natural resources
- Extensive use of non-toxic and/or recycled-content building materials
- Use water and energy efficiency
- Use of certified sustainable wood products
- Incorporation of recycling facilities
- Convenient access to public transportation
- Flexible interior design to minimize tenant improvements when reassigning space
- Recycling of construction and demolition waste
- Maintenance of good indoor air quality with little or no off-gassing from volatile organic compounds (VOC)

County facilities should be financially viable to operate, easy to maintain, and durable, and they should also contribute to the productivity and well-being of those who work in and visit them. In addition, county facilities should serve as models of responsible stewardship of natural and financial resources and be considered an enduring legacy that will remain useful to the public for a hundred years or more.

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II. POLICY

This policy shall incorporate by reference the latest version of the Leadership in Energy and Environmental Design (LEED™) rating system, a nationally recognized standard used to rate the performance of buildings and guide project design, in order to achieve the benefits of green building. The LEED™ rating system components include sustainable site design, water efficiency, energy and atmosphere, indoor environmental quality, and materials and resources.

The use of LEED™ criteria reduces operating costs, enhances asset value, optimizes building performance and creates healthier workplaces for county employees and visitors. The county therefore declares its intent to promote green building practices and low impact development in the design, construction and management of all county-owned capital facilities.

All county building projects initiated on or after March 1, 2009 shall meet the criteria for LEED™ certification under the LEED™ Rating System, or a county-approved equivalent.

- For new building projects exceeding 5,000 square feet, LEED™ certification shall be sought unless the Board of Supervisors determines it is not practicable or appropriate considering such things as the type of structure (e.g. certain utility structures), available resources, construction costs, and life-cycle costs.
- For new projects under 5,000 square feet and for remodels and renovations where the scope of the project or type of structure limits the ability to achieve effective green building practices based on estimated life cycle cost analysis and the limits of available funding.
- Departments affected by these policies are encouraged to budget for and attend sustainable building training and/or obtain LEED™ accreditation.
- All county building projects shall have a LEED™ accredited professional on the development team. LEED™ accreditation, experience, and abilities related to sustainable building design and low impact development design, engineering and construction will provide compliance with the intent of this Policy.
- For existing buildings, or for integration with existing structures, the county encourages the use of LEED™ -EB (Existing Buildings) criteria.

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- The county shall encourage the use of LEED™ building practices and low impact development in private development projects through its land use regulations, building codes, and development standards.

III. **PERFORMANCE TARGETS**

The following performance targets and goals should be met or exceeded:

- Design to the highest current version LEED™ rating approved by the County.
- Determine early in the process if a LEED™ application will be made.
- Design the site respecting all living systems.
- Search for opportunities to restore biodiversity and leave the site with more vitality than it had previously.
- Design as if each drop of water falling on the site stays on the site.
- Minimize the use of water first, then collect, reuse, and clean water on site.
- Establish energy effectiveness and performance goals prior to design using energy modeling to establish baseline data for the site. The following may be used: achieve a minimum of 40% more energy efficiency than a base building designed to meet ASHRAE 90.1, 1999, using LEED™ and ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning) energy modeling protocol as a basis for comparison.
- Establish a goal for renewable energy prior to design, (e.g. a goal of 5% renewable energy).
- Select regional building materials (within a 500 mile radius of the site) that balance: energy efficiency in the building; human and environmental health and safety; durability, maintenance and performance; resource limitation; and waste management.
- Create indoor environments that promote health and well-being by optimizing day lighting, effective ventilation, and the use of non-toxic materials.

IV. **COMMISSIONING**

In order for building systems to perform their intended performance goals, it is imperative that building commissioning be performed. Commissioning is the process for achieving, verifying, and documenting the performance of a facility, and is used in part to determine whether the systems within the facility meet the design intent, and to ensure that it meets the functional and operational needs of the personnel it serves. A successful commissioning plan creates a procedure

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When the project is seeking official LEED™ certification, the commissioning prerequisite is to be completed as outlined in the LEED™ Reference Guide. The commissioning agent shall be involved throughout all phases of the building process, from the programming phase to the post occupancy phase. The following systems shall be commissioned at a minimum:

- HVAC systems and controls
- Lighting systems and controls
- Renewable energy systems
- Day lighting systems
- Energy generation systems
- Life safety systems
- Emergency power systems
- Water recycling systems

V. **DEFINITIONS**

- *Green building practices* as defined by the U.S. Green Building Council (USGBC) LEED™ Program, are practices that conserve resources, use recycled content materials, maximize energy efficiency, and otherwise consider environmental economic and social benefits in the design and construction of a build project.
- *Leadership in Energy and Environmental Design (LEED™)* is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.
- *LEED™ Rating System* means the most recent version of the Leadership in Energy and Environmental Design, or other related LEED™ Rating System (such as for Commercial Buildings and Existing Buildings) approved by the USGBC.
- *Life-cycle Cost* represents the full costs, including financing, for designing, constructing, operating, and decommissioning a facility based upon the useful life of the facility and its components.
- *New Construction* is any new building or structure

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- *Remodel* is to add on to or modify the structure of an existing building or structure
- *Renovate* is to improve, repair, or upgrade the condition of a building or structure.
- *U.S. Green Building Council (USGBC)* is a coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work.
- *Sustainability* means looking at solutions that simultaneously improve social, economic, and environmental vitality.

Reference:

Minute Order 3.1 of 02/10/09