

**COUNTY OF SAN DIEGO, CALIFORNIA
BOARD OF SUPERVISORS POLICY**

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Purpose

To establish general principles and objectives for the design, construction and improvement of owned or leased County facilities and property.

Background

In January 1990, the Board of Supervisors adopted a policy and work program for space requirements that recognized the need for centralized, prudent management of County property and facilities. A significant issue identified by the Board was the need to establish design standards for County facilities that set forth appropriate techniques, materials and technology to improve public accessibility, energy performance, resource utilization, and the work environment. An additional critical consideration is the need to balance capital cost requirements with operating and maintenance costs.

The Department of General Services created sustainability plans that govern energy, water, waste, and transportation. These plans apply to County facilities, including new construction, major renovations and leases. The Zero Carbon Portfolio Plan (ZCPP), in place since August of 2022, establishes a decarbonization goal of 90% operational carbon emissions reduction from County buildings to be achieved by 2030. Objectives of the plan include: achieve 100% renewable content in electricity grid serving County sites; electrification of County-owned facilities (eliminating natural gas use); build new facilities to zero net energy standards; expand the monitor-based commissioning program; implement energy efficiency projects to reduce energy use; and, build renewable energy systems on County properties. Design elements necessary to implement these plans are detailed below.

In December 2022, the Board directed the use of native plants in landscaping at County facilities, where reasonable, to align landscaping objectives with the County’s biodiversity goals and resolution, and to encourage the use of native plants in landscapes across the region, resulting in a wide range of benefits including biodiversity and habitat preservation, increased drought tolerance and climate resiliency, soil stabilization, air and water purification, and increased buffering of wildlife corridors, which reduces habitat fragmentation.

Additionally, the environmental performance of facilities has significant impacts on resources, costs, and occupant/public health and well-being. A Green Building is a facility designed, constructed, and operated to achieve a high level of environmental, economic, and engineering performance. Occupant health, energy, and transportation efficiency; resource conservation (air, water, land, fuel); as well as balancing lifecycle impacts of materials (e.g., sourcing, reduction, reuse, and recycling) during building design, construction, operation, and demolition are important areas of focus. The concept applies to all types of buildings, including residential, commercial, institutional, and industrial, and addresses these principles:

1. Make appropriate use of land.
2. Minimize erosion and air, water, and land pollution.
3. Make efficient use of finite natural resources.

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4. Reduce total lifetime energy and water usage.
5. Reduce carbon emissions from building and vehicle operations.
6. Be economical to build and operate.
7. Enhance health for contractors and building occupants.
8. Use non-toxic and low-embodied carbon materials and products, where possible.
9. Procure local materials to assist the local economy and reduce transportation emissions.
10. Preserve plants, animals, endangered species, and natural habitats.
11. Protect agricultural, cultural, and archaeological resources.
12. Prioritize the use of native plant species in landscaping, where possible.
13. Practice and demonstrate recycling and waste reduction best practices.

Policy

It is the policy of the Board of Supervisors to:

1. Establish design guidelines and standards for County-owned and leased facilities to promote the following objectives:
 - a. Provide safe, healthy, functional, aesthetically pleasing facilities at a reasonable cost.
 - b. Maximize flexibility to easily accommodate changes in use, configuration, and/or occupants of a facility, including information technology infrastructure, mechanical, electrical and plumbing systems.
 - c. Utilize appropriate and flexible office design to include opportunities for multiple and after-hour use of suitable facilities where feasible.
 - d. Maximize efficient use of space by planning the facility size to leverage space sharing made possible through telework standards. Space sharing standards are included CAO Administrative Manual item 0050-01-06, Capital, Space and Maintenance Requests.
 - e. Provide features that promote client convenience and access, including clear identification, signage, flagpoles and appropriate adjacency of services.
 - f. Ensure the safety and security of employees and the public, including measures to prevent or reduce unauthorized or undesirable activities, and adequate measures to prevent injury to employees and the public.
 - g. Provide accessible and safe facilities and environments for disabled employees and members of the public.
 - h. Include features that promote employee physical and mental fitness, where practical.

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- i. Provide public transportation access and other strategies, such as bicycle storage and changing facilities and electric vehicle charging stations, to reduce vehicle use, where practical.
 - j. Provide leadership to the region in green building design and operation. Incorporate educational elements regarding sustainable design in public areas of green buildings. Inform the public of new facilities' features and benefits to promote innovative design.
 - k. Seek incentives, grants and rebates to enhance energy efficiency and sustainability in new construction and major renovations.
 - l. Maximize the use of high-quality exterior and interior furnishings and equipment to promote effective ergonomic function, and healthy, supportive workplaces.
 - m. Recognize color as an important design element and consider its effect on behavior and performance.
 - n. Compare alternative heating, ventilation, and air-conditioning (HVAC) systems based on life-cycle cost analysis.
 - o. Maximize sustainability features in new buildings, major renovations and leases.
 - p. Selection of finishes, materials, and equipment shall be made based on balancing acquisition costs with operation and maintenance requirements, emphasizing appropriate durability value, and life-cycle costs.
 - q. Plan for equipment replacement to coincide with the end of expected life span in order to avoid costly catastrophic system failure.
 - r. Coordination between the design team, county facilities staff and end users during design.
2. Create streamlined processes that ensure facilities will be built and operated according to sustainable policies and practices.
- a. Utilize County staff and qualified consultants to provide guidance to the facility planning and budgeting process to ensure sustainable measures are accommodated in the Capital Improvement Needs Assessment (CINA) program.
 - b. Conduct feasibility studies before project solicitation to ensure that sustainable measures are incorporated in the project to the greatest extent feasible.
 - c. Achieve a minimum of U.S. Green Building Council (USGBC) LEED Building Rating System, Gold Level Certification for new construction.
 - d. Where feasible, design and construct new facilities to be Zero Net Energy. Zero Net Energy (ZNE) is defined as a building which has extremely energy efficient end uses and operations so that annual energy consumed is equal to annual electricity generated, measured over an entire year. Facilities designed to this standard shall include the most energy efficient design and equipment and attain the lowest EUI (Energy Use Intensity)

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feasible within the project budget and end user's program, before applying renewables to meet the ZNE requirement.

- i. If a facility is not able to attain ZNE, it shall be designed and constructed to maximize renewable energy offset and exceed current California Energy Code Title 24 to the maximum extent practicable.
3. Set environmental standards that maximize operational sustainability, thereby minimizing the impact on the environment, while providing a comfortable, healthy, safe and efficient workplace for building occupants and visitors.
 - a. Maximize the use of passive design to reduce use of natural resources, such as daylighting, natural ventilation, evaporative cooling, envelope thermal mass (heat storage in walls, roof and flooring), shading, landscaping and other strategies, in the design of heating, air conditioning, ventilation, and lighting systems, without compromising the comfort, health, and efficiency of employees and the public.
 - b. Employ technologies that help reduce energy consumption and demand including building energy management systems (HVAC, lighting and plumbing), smart appliances and office equipment, shading devices, cool roofs (roofing materials that very effectively reflect the sun's energy), vegetative roofs (a roof at least partially covered with vegetation and soil, protected by a waterproof membrane), state-of-the-art lighting systems and automated controls, and other applicable technologies.
 - c. Employ technologies that generate on-site energy, cut County utility costs, or reduce demand on the grid, such as cogeneration systems or battery energy storage systems combined with renewable energy resources such as solar.
 - d. For new buildings or major renovations, provide automated building controls into the County's centralized networked Building Automation System for all new construction greater than 10,000 square feet. Provide systems that are open-protocol, for greater owner control, visibility and cost savings.
 - e. Limit to the greatest extent feasible the use of natural gas in new construction and major renovations.
 - f. Include fully operational electric vehicle charging stations (EVCS) for both public/employee use and fleet vehicles, in all new facilities, major renovations and leases.
4. Promote conservation of resources and incorporate methods and systems for recycling solid and liquid waste into the planning of County facilities.
 - a. Reduce carbon emissions from embodied carbon in construction materials and methods used to build new or renovate existing County-owned facilities.
 - b. Give preference to products whose recycled material content is high (including reused or refurbished materials), raw materials are derived from sustainable or renewable resources, require the minimal amount of energy and rare resources to produce and use,

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require the least amount of energy to transport to the job site, and provide the least environmental impact when disposed of.

- c. Implement recycling/reuse of discarded materials from building, construction, deconstruction and demolition whenever possible, in accordance with the County’s Construction and Demolition Materials Diversion Program.
- d. Implement landscaping designs that emphasize water conservation through use of drought-tolerant, fire-resistant, native plant materials compatible with the surrounding area for new, County-owned properties and projects. Landscape designs shall comply with the County’s landscaping ordinance, including water conservation requirements. Active recreation parks, sport fields, and open grass areas in parks and community areas are exempt. from this section.
- e. Evaluate and incorporate cost-effective technologies to reduce water consumption, including ultra-high efficiency plumbing fixtures, cooling tower water treatment equipment, irrigation devices and controllers, and other applicable technologies.
- f. Incorporate rainwater harvesting and explore potential onsite reuse of water to maximize potable water savings on new construction, major renovations, and leases where appropriate.
- g. Comply with County waste management and diversion requirements, including providing proper recycling and organics disposal containers and signage in new facilities, major renovations and leases.

The Chief Administrative Officer, or designee, shall establish design standards and guidelines, which implement the preceding goals and objectives. The guidelines and standards shall be reviewed and modified periodically in order to stay current with changing technologies and lifecycle costs of systems.

- 1. The Chief Administrative Officer, or designee, shall direct County departments to collaborate on an as-needed basis on material selections, methods, and specifications that help achieve these goals and objectives.
- 2. The Chief Administrative Officer, or designee, shall communicate and provide these standards to all affected County offices and departments, as well as consultants, developers, and contractors involved in the planning, acquisition, improvement, or construction of County facilities.

Responsible Departments

- 1. Department of General Services
- 2. County Technology Office
- 3. Department of Parks and Recreation
- 4. Office of Sustainability and Environmental Justice

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Sunset Date

This policy will be reviewed for continuance by 12-31-30.

References

- Board Action
- 12/14/93 (50)
- 12/09/97 (19)
- 11/06/01 (4)
- 03/21/07 (4)
- 07/24/07 (13)
- 12/09/08 (33)
- 09/22/09 (10)
- 12/06/11 (16)
- 11/15/16 (15)
- 10/29/19 (26)
- 11/07/23 (21)