

Sustainable Buildings and Sites Policy

1. Goal

The goal of a Citywide policy on sustainable buildings and sites is to maximize the environmental quality, economic vitality, and social health of our city through the design, construction, operation, maintenance, renovation, and decommissioning of our buildings and sites. This policy also demonstrates the City's commitment to addressing climate change and creating a sustainable future by protecting, conserving, and enhancing the region's environmental resources; to providing leadership in setting community standards for sustainable development; to providing responsible stewardship of the City's fiscal resources and public assets over time by leveraging our investments to create financial, public and environmental value; and to creating quality environments that are healthy and provide community benefit.

Sustainable buildings and sites support overall City objectives by making efficient use of limited energy, water, and material resources; reducing climate change; minimizing pollution and hazardous materials; creating healthy indoor environments; reinforcing natural systems; providing habitat; creating vibrant spaces for people; and contributing to their neighborhoods.

2. Organizations Affected

All City departments and offices, and their contractors, responsible for planning, financing, designing, developing, constructing, occupying, or managing buildings and sites shall meet the requirements of this policy.

All non-City entities receiving more than 50% of their total funding for building construction, additions, renovations, and tenant improvements from the City of Seattle shall meet the requirements of this policy or an alternative standard approved by the Sustainable Buildings and Sites Steering Committee. Entities receiving funding for affordable housing development through the Seattle Office of Housing shall meet the requirements of the Evergreen Sustainable Development Standard rather than the standards outlined in this policy.

3. Guidelines for Planning, Designing, and Financing Projects

The development of sustainable buildings and sites requires an integrated and holistic approach to assessing performance and value in order to meet multiple goals and maximize the efficiency of multiple systems. In order to meet this challenge, projects are strongly encouraged to utilize the following key concepts and frameworks in planning, financing, designing and constructing sustainable buildings and sites.

Triple Bottom Line: the value or success of a project, program, or action considering costs and benefits in terms of environmental, economic, and social impacts.

Life Cycle Cost: the total cost of ownership over the life of an asset. Life cycle cost can be used to evaluate a complete building or site as well as an individual product, process, or service. Life cycle cost takes into account all costs of acquiring, owning, and disposing of an asset in order to maximize return on investments and achieve the highest, most cost-effective performance possible. Life cycle cost assessment often utilizes the concept of net present value where the incremental costs and the associated savings are calculated over the life of the asset and identified as the current financial cost or savings.

Integrated Design Process: a collaborative method for designing buildings which emphasizes the development of a holistic design. Integrated design processes require multidisciplinary collaboration, including key stakeholders and design professionals, from conception to completion and involve a “whole building design” approach in which a building is viewed as an interdependent system, as opposed to an accumulation of its separate components (site, structure, systems and use). The goal of looking at all the systems together to is make sure they work in harmony rather than in conflict with each other. Projects utilizing an integrated design process approach undertake systems analysis during early design phases and integrated design workshop(s) at multiple stages of the project’s development.

4. Building Project Standards

It shall be the policy of the City of Seattle to plan, finance, design, construct, manage, renovate, operate, maintain, and decommission its buildings in a sustainable manner. To work toward this goal, all buildings, or portions of buildings, owned by, leased by, or leased to the City of Seattle as well as buildings, or portions of buildings, receiving 50% of their funding from the City of Seattle shall meet the following minimum requirements, to the maximum extent practicable.

Projects that have begun schematic design by the effective date of the policy are exempted from meeting the standards of sections 4.1 and 4.2 but are strongly encouraged to meet the goals of this policy to the greatest extent feasible.

4.1. New Construction, Additions, and Major Renovations

LEED

All projects constituting new construction, an addition or a major renovation of a City-occupied, City-owned building and impacting 5,000 or greater gross square feet shall meet a minimum LEED Gold rating through the appropriate rating system, as well as the following standards:

- Achieve a modeled energy use intensity performance that is a minimum of 15% more efficient than a baseline building meeting the 2009 Seattle Energy Code;
- Achieve projected water use performance that is a minimum of 30% more efficient (not including irrigation) than a baseline building meeting the 2009 Uniform Plumbing Code;
- Achieve a 90% waste diversion rate for construction involving demolition and a 75% waste diversion rate for construction not involving demolition; and
- Provide bicycle parking and changing/showering facilities appropriate to accommodate expected future demand.

Projects are strongly encouraged to utilize WaterSense plumbing fixtures. Projects requiring flushometer toilets and for which WaterSense fixtures are not available are encouraged to install toilets meeting code flush rates and to utilize rainwater harvesting or greywater to assist in meeting the 30% efficiency standard. If a City department, in consultation with the Steering Committee, determines that the cost of achieving a 30% water reduction has a payback beyond fifteen years the project may be exempted from the water performance standard.

The Department of Planning and Development's City Green Building may identify LEED credits or equivalent standards that meet these goals in order to accommodate alternative compliance pathways. Projects may achieve Living Building Challenge certification as a substitute for meeting a LEED Gold rating and additional standards.

Design and project management teams are encouraged to meet higher sustainability standards such as LEED Platinum, the Living Building Challenge, or net-zero energy.

Major renovations are projects that include both significant modifications to the building envelope and an overhaul of the HVAC system.

Capital Green

All projects constituting new construction, an addition or a major renovation of a City-occupied, City-owned building, but impacting less than 5,000 gross square feet, as well as those projects not eligible for a LEED rating, shall include the completion of a Capital Green checklist in order to assess opportunities for incorporating sustainable building features in the project.

4.2. Minor Renovations and Tenant Improvements

LEED

All projects constituting a minor renovation or tenant improvement of a City-occupied, City-owned building, that both impacts 5,000 or greater gross square feet and involves substantial modification to all three of the major systems – mechanical, electrical, and plumbing – shall achieve a LEED Gold rating through the appropriate rating system, as well as the following standards:

- Achieve projected water use performance that is a minimum of 30% more efficient (not including irrigation) than a baseline project meeting the 2009 Uniform Plumbing Code;
- Achieve a 75% waste diversion rate for construction involving demolition and a 60% waste diversion rate for construction not involving demolition;

Projects are strongly encouraged to utilize WaterSense plumbing fixtures. Projects requiring flushometer toilets and for which WaterSense fixtures are not available are encouraged to install toilets meeting code flush rates. If the City department, in consultation with the Steering Committee, determines that a 30% water reduction is not achievable using code minimum flushometer toilets the project may be exempted from the water performance standard.

The Department of Planning and Development's City Green Building may identify LEED credits or equivalent standards that meet these goals in order to

accommodate alternative compliance pathways. Projects may achieve Living Building Challenge certification as a substitute for meeting a LEED Gold rating and additional standards.

Design and project management teams are encouraged to improve the energy efficiency of their individual project by either substantially exceeding code or by meeting or exceeding the Citywide portfolio goals for existing buildings identified in Section 5. Participation in an energy target-setting and benchmarking program such as Energy Star or the 2030 Challenge is strongly encouraged to identify appropriate design goals.

Design and project management teams are encouraged to meet higher sustainability standards such as LEED Platinum, the Living Building Challenge, or net-zero energy.

Substantial modification to the mechanical system means the addition or replacement of heating or cooling equipment serving 50% or more of the heating or cooling load for the tenant space.

Substantial modification to the electrical system means the addition or replacement of 20% or more of the fixtures, or 20% or more of the lamps plus ballasts within the tenant space.

Substantial modification to the plumbing system means addition or replacement of 50% or more of all plumbing fixtures within the tenant space, or the addition of an on-site water collection system that reduces potable water use.

Capital Green

All projects constituting a minor renovation or tenant improvement by a City department of a City-occupied, city-owned building that either impacts less than 5,000 gross square feet or does not involve substantial modifications to mechanical, electrical, and plumbing systems shall include the completion of a Capital Green checklist in order to assess opportunities for incorporating sustainable building features in the project.

4.3. Non-City entity occupying City owned buildings

Non-City entities which occupy City-owned buildings should be encouraged to meet the standards of sections 4.1 and 4.2. At a minimum, City departments shall work with these entities to assess opportunities for incorporating sustainable building features in tenant improvement projects in keeping with the goals of this policy.

4.4. City occupying non-City owned buildings

When a City department occupies a building owned by a non-City entity, the City department shall meet the standards of sections 4.1 and 4.2 unless the City department, in consultation with the Steering Committee, determines it is infeasible based on specific circumstances.

5. Buildings Management

City departments shall, independently and in cooperation with each other, seek opportunities to maximize the energy and water efficiency of existing City-owned buildings, consistent with the City's climate protection goals.

6. Sites

City Departments shall follow landscape best management practices that promote the environmental, economic, and social health of our city. Each City department should use best management practices that are appropriate for their specific properties while coordinating with other departments to promote consistent practices and ensure high performance City-wide. Best management practices shall, at a minimum, consider opportunities for:

- Reducing the energy use of fleets and equipment by using energy efficient products and minimizing transportation of soil and other materials
- Reducing water use from irrigation
- Reducing runoff pollution by minimizing the use of pesticides and fertilizers
- Using green infrastructure to, minimize stormwater run-off, reduce urban heat island effects, and provide habitat
- Selecting landscape materials and site furnishings that are sustainable
- Controlling invasive species and promoting native species
- Addressing issues of crime and safety
- Creating opportunities for environmental education

All projects constituting the development or major renovation of park property owned by Seattle Parks and Recreation shall include completion of an Ideal Green Parks checklist.

7. Pilot Projects

City departments are requested to seek opportunities to initiate pilot projects that can demonstrate higher levels of environmental performance and evaluate the effectiveness of alternative rating systems. Departments should commence design on the following specific pilot projects by 2015:

- Six Sustainable Sites Initiative pilot or certified projects including two projects on Parks property, two projects in the right-of-way, and two projects outside of parks and the right-of-way;
- One Living Building Challenge certified project.

8. Additional City Priorities

While building and site standards and rating systems tend to focus on environmental and human health, there are many other City-wide goals that should be considered in order to maximize the total environmental, social, and economic benefits of buildings and sites. In addition to the standards above, departments are requested to seek to implement the following goals where appropriate:

- ***Design Quality***: strive for design excellence developing designs that respond to the site and neighborhood, integrate the numerous design disciplines, meet the needs of its constituencies, including children and people with disabilities or from other cultures, are timeless and enduring, incorporate sustainability principles, encourage walkability, and reflect the prudent use of public resources
- ***Transportation Impacts***: discourage single-occupant-vehicle commuting by locating facilities in areas of high transit service, limiting available on-site parking, and setting parking fees to reflect the true cost of parking
- ***Climate Adaptation***: consider how changing climate conditions, including temperature, precipitation and sea level, could impact the project and its function over its lifetime and consider design options to enhance the resiliency of the project to these changes.
- ***Art***: assess opportunities to incorporate art by including an artist on the design team, integrating commissioned art into the building and site design, and/or including art programming in interior and public spaces
- ***Urban Forestry***: support the City of Seattle's canopy cover goals, contained in the Urban Forest Management Plan, by seeking to maximize the canopy cover potential of sites where compatible with proposed uses

- **Public Safety:** maximize public safety by considering access restrictions, incorporating appropriate interior & exterior lighting, minimizing empty or unused spaces, supporting eyes on the street, and following Crime Prevention Through Environmental Design (CPTED) guidelines
- **Co-location:** consider opportunities to co-locate multiple uses on City property, including housing, offices, libraries, community centers, police stations, fire stations, gardens, public meeting space, etc., in order to maximize the value of City property
- **Deconstruction:** utilize deconstruction and materials salvage when removing any structure; design buildings in order to allow deconstruction at the end of their lifetime in order to allow more complete reuse or recycling

9. Procedures and Responsibilities

9.1. Sustainable Buildings and Sites Steering Committee

The City shall put in place a Sustainable Buildings and Sites Steering Committee whose responsibilities include the ongoing implementation and evaluation of this policy. The Steering Committee will be staffed by The Department of Planning and Development's City Green Building and will consist of representatives from each of the City's capital departments and the Office of Sustainability and Environment.

The Directors of City departments whose responsibilities include planning, financing, designing, constructing, operating, maintaining, renovating or decommissioning City-owned facilities shall designate one or more members to the Steering Committee. Committee members are expected to regularly attend meetings, to assist with the responsibilities of the committee, and to communicate the work of the Steering Committee with their individual departments.

A Sites Sub-committee of the Steering Committee shall be established to assist with the development of the sustainable site management guidelines identified in 4.5. The Sites Sub-committee shall be staffed by City Green Building and consist of representatives from each of the City's capital departments responsible for the planning, finance, design, construction and ongoing maintenance of sites. The Sites Sub-committee shall be responsible for reviewing the existing site management policies used by departments; developing City-wide best management practices that are relevant to all departments; coordinating trainings to ensure

appropriate implementation of the policy; and the ongoing evaluation of and updates to City-wide guidelines.

9.2. Departmental Responsibilities

Each City department is responsible for complying with this policy in each of the facilities they own and/or occupy. City capital project managers shall plan and implement capital projects consistent with this policy.

All capital construction which falls under this policy shall be budgeted to meet the required standards. Budget planning to achieve higher sustainability standards is encouraged.

City capital departments shall promote compliance with this policy by existing and prospective tenants. Departments shall adapt leasing processes, including site selection criteria, requests for proposals, maintenance and operations agreements and leasing contracts, to reflect the goals of this policy.

City capital departments shall report annually on their work to meet the Sustainable Buildings and Sites Policy. No later than March 31 of each year, each department responsible for capital improvements shall submit a report to The Department of Planning and Development's City Green Building detailing the sustainable buildings and sites work for the previous year. The report should include identification of completed, ongoing and planned projects subject to this policy. For completed projects subject to LEED, the report should include information such as: project characteristics including use, size, and scope of work; green approaches incorporated into the project; total development and construction costs; the incremental cost for LEED documentation and certification; incremental costs and savings for green strategies, if known, including utility incentives and projected yearly utility savings; and energy and water usage and utility costs for three years after occupancy. Information provided on completed projects subject to Capital Green would include information such as: the scope of work; the Capital Green checklist for the completed project; project costs; any known incremental costs for green strategies; and energy and water usage and utility costs, if relevant.

City departments implementing a LEED project shall assign LEED on-line access to City Green Building staff to allow City Green Building to compile data on LEED credits and achievements for the full portfolio of the City's LEED projects.

9.3 City Green Building, Department of Planning and Development, Responsibilities

City Green Building shall assist departments in the implementation of this policy by establishing and participating in the Steering Committee and Sites Subcommittee, developing implementation guidelines, helping to coordinate training and providing general assistance.

City Green Building shall develop a standard reporting tool for annual reports from departments and shall compile an annual progress report based on the information provided by the individual departments. City Green Building shall conduct periodic evaluations of the appropriateness and effectiveness of the policy.

City Green Building, in coordination with City departments engaged in leasing, shall develop model leasing language and/or tools that can be adapted to the City's leasing processes. Leasing language and tools should include environmental performance goals in such areas as site selection, tenant improvements, requests for proposals, building rules, and operations and maintenance.

City Green Building, in coordination with Finance and Administrative Services, shall evaluate and recommend improvements to Capital Green towards improving the utility of this resource in helping departments meet the goals of this policy.

10. Sustainability Rating Systems

2030 Challenge: a series of phased energy consumption performance targets issued by Architecture 2030 for new and existing buildings created with the goal of keeping global average temperature below 2°C above pre-industrial levels. Targets are measured against regional or country averages for that building type. The targets for new buildings are a 60% reduction beginning in 2010, with incremental targets every 5 years until reaching carbon neutrality in 2030. For existing buildings the target reduction is 10% by 2015 with incremental targets reaching a 50% reduction by 2030.

Capital Green: an evaluation tool developed by the City of Seattle to assist project managers and consultants identify and implement sustainable approaches in small scale projects, including: new construction, additions and renovations, tenant improvements and equipment replacement. Capital Green is designed to encourage the use of high

performance methods and conservation efforts in the areas of site, water, energy, climate, materials and indoor environmental quality.

Evergreen Sustainable Development Standard (ESDS): a sustainable building standard for Washington State affordable housing projects. ESDS was developed by the Washington State Department of Commerce, in partnership with the Seattle Office of Housing, to promote public health, energy conservation, operational savings and sustainable building practices. The ESDS requires a minimum level of sustainable performance for all projects funded through the Housing Trust Fund. All projects funded through the Seattle Office of Housing are also required to meet the Evergreen Standard.

Ideal Green Parks: a scoring system developed by Seattle Parks and Recreation and the University of Washington. It is designed to reduce the negative impacts of parks on the environment while maximizing positive impacts. Credits focus on efficient use of resources and increasing the longevity of Parks investments.

LEED (Leadership in Energy and Environmental Design) Rating System: a green building rating and certification system, developed by the U.S. Green Building Council (USGBC). LEED evaluates environmental performance from a whole building perspective, including sites, water efficiency, energy & atmosphere, materials & resources, indoor environmental quality, locations & linkages, awareness & education, innovation in design, and regional priority. Projects are rated according to their level of environmental performance: Certified, Silver, Gold or Platinum. As of 2011, the LEED rating system consists of nine separate but coordinated rating systems: New Construction; Core & Shell; Commercial Interiors; Schools; Healthcare; Retail; Existing Building Operations & Maintenance; Homes; and Neighborhood Development.

Living Building Challenge: a sustainable building certification program developed by the International Living Building Institute, that focuses on a performance-based, prerequisite-only approach to certification with the aim of producing buildings that are not merely less harmful than conventional building but actually contribute positively to their surroundings.

Sustainable Sites Initiative (SITES): a rating and certification system for the design, construction, operations and maintenance of sustainable landscapes. Developed by the American Society of Landscape Architects, the Ladybird Johnson Wildflower Center, and the United States Botanic Garden, SITES measures environmental performance related to water, soil, vegetation, materials selection, and human health and well being. As of 2011, SITES is in pilot phase, with final public release planned for 2013.