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Title: AN ORDINANCE requiring the use of green building and sustainable development practices in all capital projects that the county plans, designs, constructs, remodels, renovates, and operates or to which the county lends or grants funds enabling construction or executes long-term leases or other legal financial instruments causing the construction of capital projects, as long as certain financial requirements are met; and adding new sections to K.C.C. chapter 2.95.

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Indexes: Construction and Facilities Management (DCFM)

Code sections:

Attachments: 1. 16147.pdf, 2. 2008-0107 Fiscal Note.xls, 3. 2008-0107 Transmittal Letter.doc, 4. Revised Staff Report 6-18-08, 5. Staff Report (3-19-08) with attachments, 6. Staff Report 3-19-08, 7. Staff Report 3-5-08

Date	Ver.	Action By	Action	Result
6/23/2008	2	Metropolitan King County Council	Hearing Held	
6/23/2008	2	Metropolitan King County Council	Passed as Amended	Pass
6/18/2008	1	Capital Budget Committee		
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5/21/2008	1	Capital Budget Committee		
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2/25/2008	1	Metropolitan King County Council	Introduced and Referred	

AN ORDINANCE requiring the use of green building and sustainable development practices in all capital projects that the county plans, designs, constructs, remodels, renovates, and operates or to which the county lends or grants funds enabling construction or executes long-term leases or other legal financial instruments causing the construction of capital projects, as long as certain financial requirements are met; and adding new sections to K.C.C. chapter 2.95.

BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

SECTION 1. Findings:

A. Green building and sustainable development practices support the broad goals of King County, including, but not limited to, growth management, economic development, historic preservation, fiscal responsibility, environmental protection, access to public transportation, social equity, stewardship of resource lands, climate change initiatives, efficient energy and other natural resource uses, preserving fish and wildlife habitat, reducing and creating resources from wastes and protecting and improving citizen health.

B. King County has shown leadership in establishing climate protection goals and energy conservation goals through the completion of its climate and energy plans. The built environment plays a significant role in greenhouse gas emissions and energy consumption.

C. The incorporation of green and sustainable practices into the design, construction and operation of capital improvement projects can reduce greenhouse gas emissions, reduce pollution, reduce the use of natural resources, reduce energy and other operating costs, enhance asset value, optimize performance, promote cultural sustainability by preserving historic resources and create healthier and more appealing environments for the visiting public and for King County employees.

D. Ordinance 15118, adopted in February 2005, established a green building policy for all King County buildings, renovations and remodel projects. It requires that projects seek the United States Green Building Council's ("USGBC") Leadership in Energy and Environmental Design (LEED®) ("LEED") certification whenever possible. Ordinance 15118 expires April 1, 2008. By continuing and building on the green building policies set forth in the current ordinance, the county will further its sustainability goals.

E. The LEED rating system is a nationally recognized system for rating the performance of buildings and to guide project design. The LEED rating system components include: sustainable site design; water efficiency; energy and atmosphere; indoor environmental quality; materials and resources; and innovation in design. The achievement of LEED performance targets reduces operating costs, enhances asset value,

optimizes building performance and creates healthier and more productive workplaces for King County employees and visitors. Members of the USGBC representing all segments of the building industry created the LEED program and continue to contribute to its development.

F. Statistics show that green buildings that use the LEED rating system cost on average zero to two percent more to build, but depending on the level of LEED certification, may save as much as fifty dollars to seventy-five dollars per square foot over a twenty-year period. For example, a one-hundred-thousand-square-foot building may return a savings of between five million dollars to seven million five hundred thousand dollars in operating costs over twenty years.

G. King County currently has fourteen buildings registered with the USGBC. Three of these buildings have been completed and have received their LEED certification. These buildings are the Kent Pullen Regional Communication & Emergency Coordination Center, which is LEED Certified, King Street Center, which is LEED-existing building operations (EB) Gold, and Power Distribution Headquarters, which is LEED Certified.

H. King County has shown its commitment to incorporating green building and sustainable development practices in capital improvement projects through a variety of projects. The types of projects where LEED certification may apply include, but are not limited to, office buildings, transfer stations, portions of wastewater treatment plants, maintenance facilities, recreational facilities and medical facilities. The types of projects where LEED certification may not be feasible because of the scope of the project or the type of structure, but where sustainable development practices could apply include, but are not limited to, bus passenger shelters, restroom facilities, pump stations, parking garages, roads, sidewalks, bridges, flood control improvements, conveyance lines and rehabilitation of designated landmarks or properties that are eligible for landmark designation.

I. King County develops, owns and operates a wide variety of facilities that require ongoing operation and maintenance. Ensuring that these facilities are designed, operated and maintained using green and sustainable practices have the goal of reducing operating and maintenance costs, conserving energy, reducing

greenhouse gas emissions and improving indoor air quality.

J. As of May 2008, King County is facing potential general fund shortfalls as much as \$21.7 million in 2008 and \$67.3 million in 2009 as reported by the office of management and budget. These financial conditions necessitate careful consideration and accounting of the costs of construction, operations and maintenance of all county facilities.

NEW SECTION. SECTION 2. There is hereby added to K.C.C. chapter 2.95 a new section to read as follows:

The definitions in this section apply throughout this chapter unless the context clearly requires otherwise.

A. "Capital project" refers to a project with a scope that includes one or more of the following elements: acquisition of a site or acquisition of an existing structure, or both; program or site master planning; environmental analysis; design; construction; major equipment acquisition; reconstruction; demolition; or major alteration of a capital asset. A capital project shall include: a project program plan; scope; budget by task; and schedule.

B. "County green building team" or "green building team" means a group that includes representatives from county agencies with capital project or building management staff including, but not limited to, the department of transportation, the department of natural resources and parks, the department of executive services, the department of development and environmental services, the department of public health and the historic preservation program in the office of business relations and economic development. The members represent staff with expertise in project management, construction management, architecture, landscape architecture, environmental planning, design, engineering, historic preservation and resource conservation, public health, building energy systems, building management, budget analysis and other skills as needed. The green building team provides assistance and helps to disseminate information to project managers in all county agencies.

C. "Facility" means all or any portion of buildings, structures, infrastructure, sites, complexes, equipment, utilities and conveyance lines.

D. "GreenTools program" means the support team located within the solid waste division of the department of natural resources and parks that provides green building technical assistance to county divisions, cities and the general public within King County.

E. "Integrated design process" means an approach to project design that seeks to achieve high performance on a wide variety of well-defined environmental and social goals while staying within budgetary and scheduling constraints. It relies on a multidisciplinary and collaborative team whose members make decisions together based on a shared vision and a holistic understanding of the project. It is an iterative process that follows the design through the entire project life, from predesign through operation.

F. "Leadership in Energy and Environmental Design" or "LEED" means a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. A LEED certification is available for: new construction and major renovation projects, which is LEED-NC; existing building operations, which is LEED-EB; commercial interior projects, which is LEED-CI; and core and shell projects, which is LEED-CS. LEED certifications that are in the pilot phase now include LEED for Homes and LEED for Neighborhood Development.

G. "LEED-eligible building" means a new construction project larger than five thousand gross square feet of occupied or conditioned space as defined in the Washington state energy code, which is chapter 51-11 WAC, or a major building remodel or renovation project.

H. "Major remodel or renovation" means work that demolishes space down to the shell structure and rebuilds it with new interior walls, ceilings, floor coverings and systems, when the work affects more than twenty-five percent of a LEED-eligible building's square footage and the affected space is at least five-thousand square feet or larger.

I. "Minor remodel or renovation" means any type of remodel or renovation that does not qualify as a

major remodel or renovation.

J. "New construction" means a new building or structure.

K. "Present value" means the value on a given date of a future payment or series of future payments, discounted to reflect the time value of money and other factors such as investment risk.

L. "Retrocommissioning" is a detailed, systematic process for investigating an existing building's operations and identifying ways to improve performance. The primary focus is to identify operational improvements to obtain comfort and energy savings.

M. "Sustainable development practices" means whole system approaches to the design, construction and operation of buildings and infrastructure that help to mitigate the negative environmental, economic, health and social impacts of construction, demolition, operation and renovation while maximizing the facilities' positive fiscal, environmental and functional contribution. Sustainable development practices recognize the relationship between natural and built environments and seek to minimize the use of energy, water and other natural resources while providing maximum benefits and contribution to service levels to the system and the connecting infrastructures.

N. "Sustainable infrastructures" means those infrastructures and facilities that are designed, constructed and operated to optimize fiscal, environmental and functional performance for the lifecycle of the facility. Sustainable performance of infrastructure shall be determined through an integrated assessment, one that accounts for fiscal, environmental and functional costs and benefits, over the life of the facility.

SECTION 3. There is hereby added to K.C.C. chapter 2.95 a new section to read as follows:

A. The intent of this policy is to ensure that the design, construction, maintenance and operation of any King County-owned or financed capital project is consistent with the latest green building and sustainable development practices.

B. This policy applies to all King County-owned or lease-to-own capital projects, excluding projects that have already completed thirty percent of the design phase at the time of ordinance adoption.

C. All capital projects to which this chapter applies shall utilize relevant LEED criteria to implement sustainable development practices in planning, design, construction and operation as set forth in this chapter.

D. All LEED-eligible new construction and major remodels and renovations shall be registered through the United States Green Building Council and should plan for and achieve a LEED Gold certification, as long as a Gold certification can be achieved with no incremental cost impact to the current expense fund over the life of the asset and an incremental cost impact of no more than two percent to other funds over the life of the asset, as compared to a project that is not seeking a LEED rating. At or before the project has reached thirty percent of the design phase, the project team shall conduct an analysis that determines the incremental costs for achieving a LEED Gold rating as compared to a building that is not seeking a LEED rating. The analysis shall include the up-front incremental construction costs, the up-front costs of registration and certification and the present value of operations and maintenance cost savings over the life of the asset. For the purposes of this analysis, operations and maintenance cost savings shall be comprised of projected costs the county will incur over the life of the asset. The costs included in this analysis shall be quantifiable, documented and verifiable by third-party review upon project completion and thereafter.

At thirty percent of the design phase, the project team shall also provide a summary discussion of the LEED points that the project will achieve and the LEED points that are technically infeasible for the project to obtain.

For projects achieving a LEED rating, the project team shall ensure that energy efficiency is given the highest priority. Project teams shall submit a completed LEED checklist, which documents which LEED points the project team expects to achieve, to the green building team, initially at the schematic or thirty percent design phase of the project and then at the completion of the project.

If it is determined that costs are too high to achieve a LEED Gold rating, or that the project is unable to achieve that rating for technical reasons, projects shall achieve the highest rating possible with no incremental cost impact to the current expense fund over the life of the asset and an incremental cost impact of no more

than two percent to other funds over the life of the asset as compared to a project not achieving a LEED rating. There may be extenuating circumstances for some LEED-eligible projects that make it cost prohibitive to achieve any level of LEED certification. These projects must submit a written summary to the director of the department managing the project for approval, documenting the reasons why the project is not getting a LEED certification.

E. All capital projects, where the scope of the project or type of structure limits the ability to achieve LEED certification, shall incorporate cost-effective green building and sustainable development practices based on relevant LEED criteria and other applicable sustainable development goals and objectives. These projects shall use a project scorecard that is to be developed by the green building team, along with guidelines for using the scorecard. The project scorecard and guidelines will be developed by the green building team in conjunction with divisions that have capital project or building management staff and the GreenTools technical support team. The project scorecard and related guidelines for non-LEED projects shall be developed by January 1, 2009. Project teams shall submit a completed project scorecard to the green building team, initially at the schematic or thirty percent design phase of the project and then at the completion of the project. For small, related capital projects with construction costs of less than seven hundred and fifty thousand dollars each that are implemented as part of a program, the project scorecard and reporting requirements may be done for the program rather than for each individual small project.

F. For those projects which only involve making either renewable energy improvements or energy efficiency improvements, or both, at or before the project has reached thirty percent of the design phase, the project team shall conduct an analysis that determines the incremental costs of making such improvements. The costs to be included in this analysis shall include the up-front incremental construction costs and the present value of the operations and maintenance cost savings over the life of the asset. For the purposes of this analysis, operations and maintenance cost savings shall be comprised of projected costs the county will incur over the life of the asset. The costs included in this analysis shall be quantifiable, documented and verifiable by

third-party review upon project completion and thereafter.

G. To help achieve a standard level of green building operations in existing buildings, the green building team, in coordination with divisions that have capital project or building management staff and the GreenTools technical support team, shall develop a set of both mandatory and recommended green building operational guidelines for divisions to incorporate into their facility operations procedures. The guidelines shall provide direction on the use of green practices in minor remodels and renovations, water and energy conservation, waste reduction and recycling expectations, green cleaning standards and retrocommissioning to improve a facility's operating performance. The guidelines shall be developed by January 1, 2009.

H. No later than January 31 of each year, all divisions responsible for capital improvement projects or building management shall submit a report to the department of natural resources and parks, detailing the green building and sustainable development accomplishments for the previous year. The green building team shall develop a reporting form for this purpose and issue it to all divisions responsible for capital improvement projects or building management no later than January 1, 2009, to be used for the 2009 reporting year.

Information to be submitted shall include, but not be limited to:

1. The total number of capital projects a division is responsible for; number of LEED projects and other sustainable development projects, such as historic restoration and adaptive reuse, and their status;
2. The additional costs associated with achieving LEED certification;
3. The total number of non-LEED projects that have completed a sustainable development scorecard;
4. The green strategies employed;
5. The operations and maintenance costs for all completed projects incorporating green building principles and practices and projects incorporating renewable energy or energy efficiency components, as well as the operations and maintenance costs that were projected before construction;
6. The reductions in greenhouse gas emissions;
7. The construction waste recycled; renewable resources used;

8. The green materials used; and

9. The fiscal performance of all projects incorporating green building principles and practices including an accounting of all project costs and benefits that can be quantified, documented and verified.

I. The department of natural resources and parks shall compile an annual progress report of county projects using the information submitted by departments. Eleven copies of the annual progress report shall be filed with the clerk of the council by May 1 of each year, for distribution to all councilmembers.

J. The green building team shall coordinate and share information about the use of sustainable development practices countywide and, with assistance from the GreenTools program, develop tools and training for project managers to implement this legislation. Its role includes:

1. Helping to assess regionally appropriate green building and sustainable development practices;
2. Developing regionally appropriate building and infrastructure design standards and guidelines;
3. Developing tools and procedures for assessing life-cycle fiscal, environmental and functional costs and benefits;
4. Convening and facilitating sustainable development planning and charrette workshops;
5. Evaluating performance of projects and facilities, including conducting post occupancy surveys, energy and water use audits and evaluating benefits realized; and
6. Tracking and reporting progress on implementation of green building and sustainable development practices.

K. Each division with capital project or building management staff shall designate one or more green building team member or members. The team member is expected to regularly attend meetings and actively participate in disseminating sustainable development practices information back to the respective division. Green building team members should also receive either specialized training or additional training, or both, in green building design and should be encouraged to achieve the LEED Accredited Professional designation, as appropriate.

L. County capital improvement project managers that are currently managing or will manage projects that fit the criteria in subsections D. and E. of this section are responsible for attending appropriate LEED and sustainable development training and annual refresher courses. Trainings shall be coordinated by the green building team.

M. The GreenTools program shall provide technical support for the county green building team and to cities and the general public in the county as appropriate, including, but not limited to, training on LEED and other green building and sustainable development technologies, research, project review, assisting with budget analysis and convening groups to develop strategies and policies relating to green buildings and sustainable infrastructures.

N. The preservation, restoration and adaptive reuse of existing buildings is an important green building strategy because historic preservation is, in itself, sustainable development. As part of the county green building strategy, the county shall preserve and restore the historic landmarks and properties eligible for landmark designation that are owned by the county, except in cases where a certificate of appropriateness is granted by the King County landmarks commission. Projects involving designated landmarks or properties that are eligible for landmark designation shall seek to maximize green building strategies such as natural daylighting and passive ventilation. However, the King County landmarks commission or other applicable regulatory body may waive requirements of this section upon issuing findings that strict compliance with this chapter would adversely affect the historic character of the resource in question, or that there are no feasible alternatives for preservation.

SECTION 4. There is hereby added to K.C.C. chapter 2.95 a new section to read as follows:

A. The department of natural resources and parks shall continue the green building grant program established to provide incentives to the private sector, nonprofit organizations and suburban cities to adopt green building and sustainable development practices.

B. Grant funding shall be supported by the solid waste division, the water and land resources division

and the wastewater treatment division. Other county department and divisions may also participate in the grant program. Grant funding shall be identified annually, consistent with approved funding of each division's annual budget.

C. Grant funds shall be managed by the GreenTools program in cooperation with the wastewater treatment and water and land resources divisions.

D. Green building grant funding may go to residential or commercial projects that meet a discrete set of eligibility requirements, are in the service area of the division providing the grant funding and are selected in a competitive award process. Grant projects must provide educational opportunities to the public to increase the awareness and benefits of green building and sustainable development in King County.

SECTION 4. This ordinance expires December 31, 2013.