



King County

**Metropolitan King County Council
Capital Budget Committee**

Agenda Item No.: 5 and 6
2008-0107

Date: March 19, 2008

Proposed No.: 2008-0146

Prepared By: Wendy Soo Hoo

STAFF REPORT

SUBJECT: **Proposed Ordinance 2008-0146** would extend the expiration date of the county's existing green building policy to July 1, 2008.

Proposed Ordinance 2008-0107 would approve an expanded green building policy for all county-owned, financed, or alternatively financed capital projects.

SUMMARY:

Proposed Ordinance 2008-0107 clarifies and expands on policies established in Ordinance 15118 (February 2005), which was originally set to expire on January 1, 2008. In December 2007, Council extended the legislation's sunset date to April 1, 2008 (Ordinance 15996) based on the Executive's commitment to transmit the new green building policy in January 2008. Proposed Ordinance 2008-0146 would extend the sunset date to July 1, 2008 to allow Council more time to fully analyze the new green building policies described in Proposed Ordinance 2008-0107.

The new green building policies include the following key changes:

- All eligible new construction and major remodel and renovation projects would be required to achieve the LEED¹ Gold certification.
- Applicability is clarified to cover all King County-owned and county-financed projects, including projects using alternative financing.
- All capital projects that are not eligible or are limited in their ability to achieve LEED certification (e.g., infrastructure projects) will incorporate cost-effective green building and sustainable development practices using a county-developed "scorecard" or checklist.
- Lifecycle cost assessments are required and may be used to justify requests to the Executive for additional budget expenditures to cover higher up-front costs if long-

¹ United States Green Building Council's Leadership in Energy and Environmental Design (LEED)

term benefits are identified. Long-term benefits may include lower operations and maintenance costs.

- Divisions must conduct an energy audit of existing buildings and prioritize improvements that can be made to achieve a ten percent reduction in energy consumption by 2012.

The proposed legislation also calls for guidelines for using green practices in operating and remodeling existing buildings; more specific reporting requirements improve the information compiled on county divisions' green practices; continuing the county-wide Green Building Team and clarifying its roles and responsibilities; and requiring project managers to be trained in green building practices.

BACKGROUND ON LEED STANDARDS:

What is LEED? Leadership in Energy and Environmental Design (LEED) is a voluntary, consensus-based standard for developing high-performance, sustainable buildings. The U.S. Green Building Council, which represents all segments of the building industry, developed the LEED standards.²

LEED Standards – LEED standards are currently available or under development for: New Construction, Existing Buildings, Commercial Interiors, Core & Shell, Schools, Retail, Healthcare, Homes, and Neighborhood Development.

LEED Scope – LEED provides a complete framework for assessing building performance and meeting sustainability goals. LEED emphasizes strategies for sustainable site development, water efficiency, energy efficiency, materials selection, indoor environmental quality, and innovation in design. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. Different levels of green building certification are awarded based on the total credits earned.

LEED Rating System – LEED certification is subdivided based on the number of points earned in a LEED assessment into the following range of ratings (from the lowest to highest): Certified, Silver, Gold, and Platinum.

KING COUNTY'S CURRENT GREEN BUILDING POLICY:

Ordinance 15118: The current green building policy, adopted in February 2005, requires all new projects and remodels and renovations with budgets over \$250,000 to seek the highest LEED certification level that is cost-effective based on life-cycle cost

²The council works to promote buildings that are environmentally responsible, profitable and healthy places to live and work. Member organizations total 11,500 building owners, architects, governmental agencies, and product manufacturers. Local members include King County, the State of Washington, the City of Seattle, the City of Bellevue, the City of Issaquah, Snohomish County and the University of Washington.

analysis and the limits of available funding. The policy also requires that new projects where the scope or type of structure limits the ability to achieve LEED certification still incorporate cost-effective green building practices.

Ordinance 15118 also directed DNRP to provide technical support for the county's green building program as appropriate. Departments are required to submit regular reports to the Department of Natural Resources and Parks (DNRP) to provide an update on the status of green building accomplishments. Per the policy, DNRP maintains and monitors a list of county projects that incorporate LEED criteria and compiles an annual progress report on these projects.

This policy was set to expire as of January 1, 2008. In December 2007, Council extended the expiration date to April 1, 2008 (Ordinance 15996).

Other policy frameworks that have guided the county's green building practices are summarized in Attachment 5 to this staff report.

ANALYSIS:

The following table compares the existing green building policy (Ordinance 15118) and the proposed update:

Table 1 Comparison of Existing Green Building Policy and Proposed Update	
Existing Green Building Policy (Ordinance 15118)	Proposed Update (Proposed Ordinance 2008-0107)
Application: <ul style="list-style-type: none"> • Applies to all buildings the county constructs, remodels, renovates 	<ul style="list-style-type: none"> • Applies to all county-owned or financed projects
Minimum Certification Level: <ul style="list-style-type: none"> • <u>No minimum</u> - All projects shall use green building practices and seek the <u>highest certification level possible</u> based on cost-effectiveness and available funding 	<ul style="list-style-type: none"> • Requires all projects to seek <u>Gold</u> certification level – if not able to achieve Gold, must obtain approval from department director
Life-Cycle Assessments: <ul style="list-style-type: none"> • Cost-effectiveness determined based on life-cycle cost analysis • <u>Note:</u> Executive policy FES 9-3 (AEP) states departments may use life-cycle cost analysis to justify requests for expenditures beyond project budgets 	<ul style="list-style-type: none"> • Life-cycle assessments shall be used to determine which strategies will cost-effectively optimize building performance • Projects may use life-cycle assessments to justify requests for expenditures beyond project budgets
Unique Projects/Buildings: <ul style="list-style-type: none"> • Acknowledges that some building types may not be able to achieve LEED 	<ul style="list-style-type: none"> • Projects that are not LEED-eligible shall incorporate green building

certification - requires application of green building practices even when certification is not feasible.	practices based on LEED and other criteria – a benchmarking scorecard will be developed to identify green practices for specific types of infrastructure projects
Existing Buildings: <ul style="list-style-type: none"> Establishes \$250,000 threshold for seeking highest possible LEED certification on remodels and renovations 	<ul style="list-style-type: none"> Existing buildings to be inventoried with goal of achieving 10 percent energy savings by 2012 Divisions shall identify facilities appropriate to achieve LEED Existing Building certification
Reporting: <ul style="list-style-type: none"> Requires departments to submit reports for capital projects; DNRP compiles an annual progress report. 	<ul style="list-style-type: none"> Requires departments to establish environmental goals and monitoring system Departments required to report to DNRP annually on specific items such as number of LEED projects and their status, green strategies employed, applicable energy savings, etc. DNRP will compile a report to Council by April each year
	New Policy Area – Green Building Operational Guidelines <ul style="list-style-type: none"> Green Building Team will develop mandatory and recommended operational guidelines to provide direction on minor remodels, water conservation, green cleaning standards, etc.
	New Policy Area – Green Building Grant Program <ul style="list-style-type: none"> Continues program established in 2006 to provide incentives to the private sector, nonprofit organizations, and suburban cities – green building grant funding may go to residential or commercial projects that meet eligibility requirements

Council staff identified a number of potential issues and questions that require further consideration.

1) Gold Rating Requirement for All LEED-Eligible Projects – As shown above, the proposed ordinance would require all LEED-eligible projects to achieve a minimum

LEED rating of Gold in contrast to the current policy which requires that projects seek the highest certification possible.

Projects that would not be able to achieve the Gold rating would need to obtain approval from the department director. The legislation does not propose specific criteria to guide the approval process. Department directors would evaluate the reasons for not achieving a Gold rating and make a determination to approve a lower rating based on the circumstances.

According to the Executive's transmittal letter, 55 cities, 11 counties, 8 towns, 22 states, and 11 federal agencies have adopted LEED initiatives. Of these jurisdictions, three require projects to achieve the LEED Gold standard: Portland, Oregon; Scottsdale, Arizona; and Vancouver, British Columbia. Note that the City of Seattle and State of Washington have established requirements for projects to minimally achieve the LEED Silver rating. (Attachment 6 to this staff report summarizes the green building policies for Portland, Scottsdale, Vancouver, Seattle, and Washington.)

The fiscal note attached to the legislation states that the fiscal impact will vary for each project. A study cited by Executive staff concluded that the average up-front cost premium associated with achieving LEED Certified, Silver, and Gold ratings for 33 green buildings ranged from 0 to 2 percent.³ Note that the ranges of actual cost premiums associated with each rating were not provided in the study. The fiscal note suggests that at a cost premium of 1 percent (the mid-point of the 0 to 2 percent range), a \$50 million facility could have additional up-front costs of \$500,000 as a result of the green building policy.

As shown in Table 2 below, the county has nine buildings that are currently pursuing LEED certification and five that have already achieved certification. Of the five that have already achieved LEED certification, two buildings achieved a Gold or Platinum rating – the King Street Center achieved an Existing Building-Gold rating and the Chinook Building achieved a Core/Shell-Gold rating and a Commercial Interior-Platinum rating. Three facilities (Kent Pullen Regional Communication & Emergency Coordination Center, Power Distribution Headquarters, and Marymoor Maintenance Facility) achieved Certified ratings.

Of the nine buildings pursuing certification, the majority (six) are seeking a Silver rating. Two buildings are seeking Gold ratings, and one is seeking a Platinum rating. Note that projects that have completed 30 percent design at the time the ordinance is adopted would not be subject to the updated policies.

³These costs can include increased design time, modeling costs, and time necessary to integrate sustainable building practices into projects.

**Table 2
County Buildings Seeking or Achieving LEED Certification**

Certified Projects	Project Status	LEED Rating Achieved
1. Kent Pullen Regional Communication & Emergency Coordination Center	Completed	Certified
2. Power Distribution Headquarters	Completed	Certified
3. Marymoor Maintenance Facility	Completed	Certified
4. King Street Center	Completed	Gold
Projects Seeking Certification	Project Status	LEED Rating Planned
5. Chinook Building	Completed	Core/Shell – Gold; Commercial Interior – Platinum
6. Atlantic- Central Base Tire and Millwright Shop	Completed	Silver (LEED rating in progress)
7. Shoreline Recycling & Transfer Station	Completed	Silver (LEED rating in progress)
8. Bow Lake Transfer Station	Design	Silver
9. Carnation Treatment Plant	Construction	Silver
10. South Plant New Administration Building	Construction	Silver
11. Ninth and Jefferson Building	Construction	Silver
12. Brightwater Environmental Education Center	Design	Gold
13. Central Base Police Building	Design	Gold
14. Atlantic Operations Complex	Design	Platinum

Source: Department of Natural Resources and Parks

Status – Council staff has received project cost data and is continuing to work with Executive staff to analyze the data.

Attachment 7 to this staff report provides a preliminary summary of LEED-related costs for the above projects and how these costs compare to total construction costs. As shown in Attachment 7, LEED-related costs range from less than 1 percent of total construction costs to as high as 14 to 15 percent of projected construction costs. Note that LEED-related costs have not been provided for several projects, including Marymoor Maintenance Facility, Kent Pullen Regional Communication and Emergency Coordination Center, and the King Street Center. Council staff will continue to work with Executive staff to obtain information on LEED-related costs for these projects.

Further cost analysis will include consideration of Current Expense fund impacts of LEED-related costs.

Council staff will continue to research the county's anticipated "green" benefits and actual building performance (such as energy savings) as well as industry data on non-monetary benefits of green building practices (such as worker productivity gains, etc.).

2) Guidelines Not Included for Determining Cost-Effectiveness of Individual Projects' Green Design Features – The proposed legislation does not indicate that future operational cost savings identified through life-cycle cost analyses should fully or significantly offset the up-front incremental cost premiums associated with green building features.⁴

The City of Scottsdale's green building policy (Resolution 6644) provides an example of a policy that sets a clear guideline for determining cost-effectiveness. Scottsdale's policy directs projects to achieve the LEED Gold rating whenever resources and conditions permit and specifies a maximum pay-back period of five years. Where the payback period is anticipated to exceed five years, city staff is directed to recommend which LEED rating, if any, is appropriate for the particular project.

Council could consider refining the legislation and establishing guidelines for determining whether pursuing a LEED Gold rating is sufficiently cost-effective for individual projects. Council could also consider establishing a policy that directs the county to purchase offsetting carbon credits when pursuit of a LEED Gold rating is deemed more costly.

Status – Council staff is continuing to analyze this issue in conjunction with the previous issue. Council staff has requested and obtained examples of life-cycle cost analyses and will work with Executive staff to understand the methodologies used in these analyses. Our review will also seek to understand how non-monetary green benefits are incorporated into these analyses.

3) Other Building Priorities Not Currently Addressed in Legislation – The proposed legislation does not address historic buildings. Executive staff indicated that the intent of the proposed ordinance is not to supersede requirements in place for historic buildings. Instead, the objective for projects in historic buildings would be to maximize sustainable approaches without jeopardizing the building's historic status. This objective is not explicitly stated in the proposed legislation, so Council could consider adding a policy statement regarding prioritization of historic preservation and green building practices.

Status - Council staff has conducted research to respond to Council questions regarding historic preservation and its relationship to green/sustainable design.

⁴ The fiscal note states that "life-cycle analysis will determine for each facility whether the projections indicate that the initial up-front investment in the project budget proposed to council will be recovered due to savings in future years."

Preliminary research shows that historic preservation and green/sustainable design movements are not wholly inconsistent. Preservationists argue that restoring and reusing historic buildings is inherently "green."

However, Council staff is working with historic preservation staff to better understand the potential conflicts between green building objectives and historic preservation objectives.

Council staff also notes that LEED standards do not yet specifically address historic buildings, making it potentially more challenging for these buildings to achieve LEED status. Still, some historic buildings have achieved LEED certification. Examples provided by Executive staff include:

- In 2006, the Gerding Theater (Portland, Oregon), which is listed on the National Register of Historic Buildings and was constructed in 1889, became the first historic building to achieve LEED Platinum status.
- The Balfour-Guthrie Building (Portland, Oregon), designed in 1913, achieved the LEED Silver rating in 2003.
- The Cobb Building (Seattle), originally built in 1910, was recently renovated and received a LEED Silver rating.
- The offices of Perkins + Will architecture firm achieved a LEED Commercial Interiors Platinum rating for a renovation of a six-story brick building originally constructed in 1912 at the corner of Second and University in Seattle.

As currently written, the proposed ordinance does not specifically include language regarding historic buildings. Executive staff indicated that renovation work on county-owned historic buildings could potentially fall under either the general LEED Gold requirement or under the requirements for non-LEED projects. As required in Section 3.D., major renovation projects would generally be required to meet the LEED Gold standard, even in historic buildings, unless an exception was approved by the project's department director. Projects in historic buildings a limited scope of work may not be able to qualify for LEED, but would still be required to incorporate green practices based on a scorecard/checklist to be developed under Section 3.E.

Council staff will continue to analyze this issue and develop options for additional policy guidance on incorporating green practices in historic buildings.

4) Specific Reporting Requirements Do Not Include Incremental Cost Information

– The proposed ordinance includes a list of items to be included on a reporting form to be completed by each division responsible for managing capital improvement projects. This information would ultimately be compiled and summarized in an annual report to Council. The reporting form includes:

- Total number of capital projects a division is responsible for;
- Number of LEED projects and their status;

- Total number of non-LEED projects that have completed a sustainable development scorecard;
- Green strategies employed;
- Applicable energy savings;
- Reductions in greenhouse gas emissions;
- Construction waste recycled;
- Renewable resources used;
- Green materials used; and
- Fiscal, environmental and functional pro forma of projects in various stages of development.

The reporting form could potentially require divisions to provide information on the incremental cost associated with LEED projects as well. This would allow for monitoring of the cost-effectiveness of the county's green building program.

Status – *As part of the analysis of green building policies, Council staff will continue to identify other potential information requirements, such as information on non-monetary/other green benefits, to include in the legislation. This will include working with Councilmembers to determine what information would be useful to inform their oversight of and decisions regarding green buildings and capital projects.*

5) Green Building Grant Programs – The proposed legislation includes direction for managing the county's LEED and Built Green Incentive Grant Programs, which were established pursuant to Ordinance 15118. The grant program began in 2006 and has two components.

The first is the King County/Seattle Built Green Incentive program which competitively awards grants to residential projects twice a year. These grants are open to any project in King County that meets specific eligibility criteria (e.g., single-family, new construction). Applicants are evaluated based on criteria such as:

- Affordability and replicability of green design demonstrated by the project;
- Project status in early design phase so the grant would provide incentive to increase use of green strategies;
- Educational value to the public on innovative green design; and
- Awards represent a diverse range of project types throughout King County.

This program is currently funded through a \$50,000 King County DNRP WaterWorks Grant and a \$40,000 grant from Seattle Public Utilities. Funding from Seattle Public Utilities may not continue beyond 2008. (Council staff was informed that the City may be initiating its own grant program.)

The second program is the King County LEED Incentive Grant program which competitively awards grants once a year to commercial projects. Applicants for the LEED Incentive Grant awards are evaluated on criteria such as:

- Innovativeness of green design, elements, or techniques;
- Project status preferably in the design phase so the grant award would provide incentive to increase use of green strategies;
- Educational value to the public about new green building practices; and
- Secure project funding and construction schedule that indicates good use of county funds in the near term.

In 2008, \$120,000 is available with the county's Solid Waste, Wastewater Treatment, and Water and Land Resources Divisions providing \$40,000 each.

Status – Council staff is researching other similar programs to identify best practices.

6) Relationship of Proposed Ordinance to 2008 Comprehensive Plan Update – The Executive recently released a proposed 2008 Comprehensive Plan update. Proposed changes to Chapter 2, Section VI are shown below:

U-601 King County (~~should~~) shall incorporate sustainable development principles and practices into the design, construction and operation of county facilities and county-funded projects (~~when economically feasible~~).

~~((U-602 – The use of green building practices should be accomplished within traditional project budgets. If additional funds are sought for up-front costs, a life cycle cost analysis of the project should be completed to determine the long-term benefits of using green building practices.))~~

U-604 King County (~~should~~) shall leverage its purchasing power related to capital improvement projects to help expand the markets for green building products, including recycled-content materials and clean, renewable energy technologies.

As shown above, the proposed plan strengthens provisions related to green building by now requiring the county to incorporate sustainable development practices into the design and operation of buildings. At the same time, the proposed changes reduce the emphasis on cost-effectiveness.

Status – Council staff assigned to green building legislation will coordinate with staff assigned to the Comprehensive Plan to discuss overlap.

REASONABLENESS:

Council staff is continuing to analyze the reasonableness of the proposed changes to the County's green building policies. As such, Proposed Ordinance 2008-0107 is not yet ready for action.

Correspondingly, it would be a prudent and reasonable business decision to pass Proposed Ordinance 2008-0146, which would extend the expiration date of the County's existing green building policies and allow Council additional time to assess and consider the proposed changes to the County's green building policies.

INVITED:

Kathy Brown, Director Facilities Management Division
Theresa Jennings, Director, DNRP
Bob Burns, Deputy Director, DNRP
Kevin Kiernan, DNRP
Bob Cowan, Director, OMB

ATTACHMENTS:

1. Proposed Ordinance 2008-0107
2. Proposed Ordinance 2008-0146
3. Transmittal Letter, dated February 14, 2008
4. Fiscal Note
5. King County Green Building Policy Frameworks
6. Summary of Other Jurisdictions' Green Building Policies
7. Summary of King County Green Buildings' LEED-Related Costs



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

March 18, 2008

Ordinance

Proposed No. 2008-0107.1

Sponsors Ferguson, Constantine and Phillips

1 AN ORDINANCE continuing the requirement to use green
 2 building and sustainable development practices in all
 3 capital projects that the county plans, designs, constructs,
 4 remodels, renovates, and operates or to which the county
 5 lends or grants funds enabling construction or executes
 6 long-term leases or other legal financial instruments
 7 causing the construction of capital projects.

8
9 BE IT ORDAINED BY THE COUNCIL OF KING COUNTY:

10 SECTION 1. Findings:

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

17 B. King County has shown leadership in establishing climate protection goals

