



## Request for City Council Committee Action From the Department of Public Works

**Date:** July 10, 2006  
**To:** Honorable Scott Benson, Chair - Health, Energy & Environment Committee  
**Subject:** Green Buildings Standards

**Recommendation:**

- 1) Adopt the Leadership in Energy and Environmental Design (LEED) standards in the planning, design, construction, and commissioning of municipal facilities financed by the City of Minneapolis and utilized by the City’s Charter Departments.
- 2) That all new or significantly renovated municipal facilities (financed by the City of Minneapolis and utilized by the City’s Charter Departments) should be built to a LEED Silver level of quality with emphasis in LEED points related to “Energy and Atmosphere” – unless otherwise directed by the City Council.
- 3) That staff be directed to report back by end of September on the feasibility of Certified LEED Silver level of quality for the 1) Hiawatha Maintenance Facility , 2) the Emergency Operations Center (in partnership with Hennepin County), and 3) the Fridley Ultra Filtration Plant.

**Previous Directives:**

June 16, 2006 – Council Action forwards a recommendation for the adoption of the Leadership in Energy and Environmental (LEED) standards for all City Buildings to the Citizens Environmental Advisory Committee (CEAC) and the Environmental Coordinating Team (ECT) for additional input on Implementation strategies, and further forwards the recommendation to staff for further analysis on implementation strategies. This matter shall be returned to the Health, Energy and Environment Committee on July 10, 2006 and to the City Council for final adoption of the policy and implementation strategies.

**Prepared by:** Greg Goeke, Facilities Manager – Property Services 673-2706

**Approved by:**

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Steve Kotke, P.E., Acting City Engineer/Director of Public Works

**Presenter:** Greg Goeke, Facilities Manager – Property Services

Permanent Review Committee (PRC)	Approval _____	Not applicable <u>  X  </u>
Policy review Group (PRG)	Approval <u>  X  </u>	Not applicable _____

**Financial Impact** (Check those that apply)

- No financial impact - or - Action is within current department budget (If checked, go directly to Background/Supporting Information)
- Action requires an appropriation increase to the Capital Budget

- Action requires an appropriation increase to the Operating Budget
- Action provides increased revenue for appropriation increase
- Action requires use of contingency or reserves
- Business Plan:  Action is within the plan.  Action requires a change to plan.
- Other financial impact (Explain): Adoption of Certified LEED Standards will increase the initial costs of building projects by approximately 2 % to 10%.
- Request provided to department's Finance Dept. contact when provided to the Committee Coordinator

**Community Impact**

- Neighborhood Notification: Not applicable
- City Goals: Maintain the physical infrastructure to ensure a healthy, vital and safe City; Preserve and enhance our environmental, economic and social realms to promote a sustainable Minneapolis
- Comprehensive Plan: In conformance
- Zoning Code: In conformance

**Background/Supporting Information**

At the direction of the City Council to staff at its June 16, 2006 meeting, Property Services facilitated the process of receiving input and recommendation from the Citizens Environmental Advisory Committee and the Environmental Coordination Team for adoption of the Leadership in Energy and Environmental Design (LEED) standards as well as implementation strategies of these standards. The input and recommendation is limited at this time to City's financed buildings that are being constructed or significantly renovated for the use of the City's Charter Departments for Municipal Operations.

**Process for receiving Input and Recommendation for Implementation Strategies**

The process followed was for the City to provide an independent consultant (Rick Carter, Senior Vice President of LHB) to provide to provide research, attend meetings and answer questions as needed to help formulate discussion, input and recommendation from the Citizens Environmental Advisory Committee, the Environmental Coordination Team and City staff. Attached are the report from LHB and the Citizens Environmental Advisory Committee.

**Definitions associated with LEED Standards**

LEED standards have been developed by the members of the United States Green Building Council (USGBC). LEED standards are points based system that awards points for meeting design and construction criteria in the following areas: 1) Sustainable Sites, 2) Water Efficiency, 3) Energy and Atmosphere, 4) Materials and Resources, 5) Indoor Environmental Quality, 6) and Innovation and Design Process.

There are a total of 69 available points associated with meeting certain design, construction and/or performance criteria. The points (or areas of emphasis) are "above and beyond" a typical building code design requirement. In general, some points are 1) required (example: Erosion and Sediment Control), 2) fairly achievable without great effort or expense, 3) some are extremely difficult or expensive to achieve (example: 20% Renewable Energy produced on-site), or 4) incompatible with project (example: 100% Building Re-use), or 5) unachievable due to current State law (example: 20% locally manufactured products).

Levels of Achievement:

A minimum level of 26 points must be achieved in order to have fulfilled to intent of the USGBC for a “green” building.

LEED Certification: 26 – 32 points

LEED Silver Certification: 33 – 38 points

LEED Gold Certification: 39 – 51 points

LEED Platinum Certification: 52 – 69 points

**How does this compare to a recent City building project?**

LHB reviewed two recent City of Minneapolis projects. Based on building tours, review of documents and interviews with Project Architects, the assessments are as follows:

Third Precinct:

LHB estimated the number of LEED points achieved to be 23. We also estimate the number of potential additional points to be 19. The number of points would likely have been higher than 26 (the minimum for LEED Certification) if LEED Certification were a goal. This project did go through the Xcel Energy Design assistance program and is designed to perform at least 30% better than the Minnesota Energy Code.

Animal Care and Control:

LHB estimated the number of LEED points achieved to be 17. We also estimate the number of potential additional points to be 15. The number of points would likely have been higher than 26 (the minimum for LEED Certification) if LEED Certification were a goal. This project did go through the Xcel Energy Design assistance program and is designed to perform at least 30% better than the Minnesota Energy Code.

**Costs associated with Implementation**

Implementing LEED standards will increase the upfront costs of a typical building. Some of the costs involve extensive administration and documentation expenses (\$25,000 to \$75,000), additional design/engineering/commissioning expenses (\$50,000 to \$150,000), and up-front qualitative improvements (2% to 10% on a given project).

Cost Summary for additional anticipated expenses for a \$10,000,000 new facility: (As compared to recent City Projects)

LEED Compliant:	+ \$ 150,000
LEED Certified:	+ \$ 250,000
LEED Certified – Silver:	+ \$ 450,000
LEED Certified – Gold:	+ \$ 650,000
LEED Certified – Platinum	+ \$1,050,000

Costs of operating, maintaining and staffing a building will go down significantly when measured over time. Most studies indicate relatively short “simple” paybacks and high return on investments for this investment.

The costs of Documentation and Certification could be avoided by not submitting to the USGBC. This has been discussed and referred to as a "Compliant" building. There is no official verification process or status for this choice.

### **Best and Common Practices of other Comparable Cities**

The Citizens Environmental Advisory Committee, with assistance of the consultant, contacted 17 comparable cities (Appendix Three in CEAC Report) who have or in the process of implementing “green” building standards for their own municipal projects.

Best and Common Practices:

- All were using or were intending to use LEED as the standard for planning, design and implementation for internal building projects.
- 12 cities were requiring a Silver level of implementation, 2 cities were requiring a Gold level (new buildings only)
- 11 cities were requiring “certification” or a project to be “certified”
- Implementation varied from all buildings, to buildings over a certain size (e.g. 10,000 square feet) or just new buildings.

### **Input and Recommendations**

The Council request for input and recommendation for adoption of LEED standards and implementation strategies was discussed at the regularly scheduled June, 2006 meeting of the Citizens Environmental Advisory Committee and a June 27<sup>th</sup> special meeting of the Environmental Coordinating Team. The Citizens Employees Advisory Committee formed a sub-committee to dedicate proper time and attention to the Council Request.

Citizens Environmental Advisory Committee recommends:

- The City should commit to the LEED Certification process (pilot or permanent TBD)
- The City should commit to continuing research prior to executing a LEED program, to favor successful implementation. (This should include gathering information from precedent cities that have these programs in place).
- LEED Silver certification is a meaningful start target for buildings over a minimum size (e.g. 10,000 Square Feet).
- The City should consider committing to at least one “Gold” building in the future as a step toward gaining further institutional understanding.
- The City may investigate adopting a minimum achievement level in the area of “Energy and Atmosphere” given our climatic extremes and increasing public concern over CO<sub>2</sub> and energy security.

Environmental Coordinating Team recommends:

- Certified LEED Silver Level for the new Hiawatha Maintenance Facility. This would be a pilot project to increase the City’s understanding of LEED; additional funding or reduced scope will be required.

- New policy that all new or significantly renovated municipal facilities should be built to a LEED silver level of compliance with emphasis in LEED points related to “Energy and Atmosphere” – unless otherwise directed by the City Council.
- Staff be directed to report back by end of September on feasibility of Certified LEED Silver level of quality for the 1) Emergency Operations Center (in partnership with Hennepin County) and 2) the Fridley Ultra Filtration Plant.

Att.: CEAC LEED Recommendation  
LHB Report  
LEED Checklist – Hiawatha Maintenance Facility