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January 12, 2018

Saint Paul City Councilmembers
15 Kellogg Blvd W
Saint Paul, MN 55102

Re: Support of Ordinance 17-60

Dear Councilmembers,

We are writing in whole-hearted support of City Ordinance 17-60 and the Saint Paul Overlay. On behalf of the U.S. Green Building Council, we are particularly pleased with the inclusion of LEED and Parksmart within the ordinance, and applaud your continued sustainability leadership.

The U.S. Green Building Council (USGBC) is a global non-profit dedicated to the advancement of sustainable buildings and communities for all, representing 12,000+ companies nationwide and 180 Minnesota companies who are members. USGBC is best known as the developers of the Leadership in Energy & Environmental Design (LEED) green building program.

After 24 years, USGBC has emerged as the drive train of a $300 billion dollar green construction industry nationwide that's estimated to employ approximately 3 million Americans. From the green buildings built or renovated within the past 4 years alone, we estimate that this green construction industry accounts for $2.4 billion in energy savings nationally.[1]

LEED Projects Demonstrate High Levels of Performance

Throughout recent years, USGBC expanded its leadership with several additional rating systems, including Parksmart, to bring cohesion and comprehension to the world of sustainable building and communities.

In study after study, research finds that LEED presents an effective framework for driving and delivering energy efficiency. A few notable studies include:[2]

- Two GSA studies conclude that LEED-certified buildings used 25 percent less energy than the national average. The 2011 report[3] drew on the research conducted in the 2008 report.[4]

[1] U.S. Green Building Council and Booz Allen Hamilton. "2015 Green Building Economic Impact Study." September, 2015.
[2] For more information, see also: "GBIG Insight Research Anthology – High Performance Building Benefits and Investment Costs." February, 2014.
[3] GSA Public Buildings Service. "Green Building Performance: A Post Occupancy Evaluation of 22 GSA Buildings." August, 2011.
[4] Kim M. Fowler and Emily M. Rauch, Pacific Northwest National Laboratory. "Assessing Green Building Performance: A Post Occupancy Evaluation of 12 GSA Buildings." July, 2008.

- The National Research Council of the National Academies of Sciences conducted a detailed literature review and concluded, that despite variations, "the 13 studies that measured actual energy use (not modeled energy) found that high-performance or green buildings, on average, used 5 to 30 percent less site energy than conventional buildings."[5]

- The Energy Trust of Oregon and Cadmus Group found that LEED projects receiving a utility incentive achieved an average gross square foot-weighted savings of 23% over baseline building energy consumption, based on post-occupancy evaluation.[6]

- A 2014 analysis of the District of Columbia's 2012 Private Building Benchmarking Disclosure data including 275 commercial office buildings benchmarked for energy use using the EPA's ENERGY STAR Portfolio Manager program discovered that LEED office buildings had a 13% lower average site EUI (64.0 kBtu/SF vs. 73.3 kBtu/SF), 11% lower average electricity usage (18.0 kWh/SF vs. 20.2 kWh/SF) and 16% lower average water usage (17.9 Gal/SF vs. 21.4 Gal/SF) when compared to non-LEED certified office buildings.[7]

The findings of these and many other studies reinforce the market value and energy saving potential of LEED certification. This is why cities like Saint Paul choose LEED as their preferred benchmark for green building excellence (see **attached** brief).

Parksmart: The Sustainability Complement to LEED for Parking Facilities

Parksmart defines and recognizes sustainable practices in parking structure management, programming, design and technology. Industry-driven and field tested, Parksmart distinguishes the forward-thinking parking facilities shaping tomorrow's sustainable mobility network.[8]

Parksmart is an industry-accepted standard designed to fill a gap in LEED's coverage. Since 2011, USGBC has not allowed parking garages or parking areas of buildings to pursue LEED certification. This gap creates an opportunity for a sustainability rating system, developed in LEED's image, to coherently and comprehensively address opportunities for slashing environmental impacts in these structures in the City.

Already, cities and institutions across the country are adopting Parksmart as a complement to their green building policies to extend sustainability standards to

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[5] National Research Council of the National Academies. "Energy-Efficiency Standards and Green Building Certification Systems Used by the Department of Defense for Military Construction and Major Renovations." 2013.
[6] Jeff Cropp and Allen Lee, Cadmus, and Sarah Castor, Energy Trust of Oregon. "Evaluating Results for LEED Buildings in an Energy Efficiency Program." Published by ACEEE in August, 2014. (see pp. 3-68).
[7] U.S. Green Building Council. "Do LEED Buildings Perform? Indeed They Do!" December, 2014.
[8] For more information about Parksmart, visit: http://parksmart.gbci.org/.

parking garages that are otherwise left out of LEED's current scope. Some of these early adopters include: Miami Beach, FL; Pittsburgh, PA; Atlanta, GA; Portland State University, OR; and the City of Berkeley, CA.

To further the complementary nature of LEED and Parksmart, USGBC is building a technical crosswalk between LEED and Parksmart in order to optimize their singular and combined application in built infrastructure projects.

Thank you again for the opportunity to provide input on this important update to Saint Paul Sustainable Building Policy Ordinance. State and local leadership on green building has never been more important. Thank you for outstanding work on sustainability initiatives at the City!

Please do be in touch if we can be of further assistance.

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POLICY BRIEF

LEED v4: A NEW BENCHMARK FOR GOVERNMENT IN HIGH-PERFORMANCE GREEN BUILDING

LEED green building certification has transformed how the building industry and the public consider sustainability in real estate. The most recent update to LEED, known as LEED v4, is the new standard for high-performance green buildings worldwide.

LEED v4 builds on the progress of previous versions, raising the bar for minimum performance and adding new optional credits in every category. It is intended to be more flexible than its predecessors, as it is designed to take into account the unique needs of particular building types.

Adopted after countless hours of volunteer time, consideration of public review comments, and a rigorous consensus process, the new system will be the only version available for newly registering LEED projects starting November 1, 2016.[1]

LEED v4: OUTCOMES DELIVERED

Setting a new standard for sustainability in buildings, LEED v4 has been designed to both enable and validate excellence across a core set of system goals, including:

- Reverse contribution to global climate change
- Enhance individual human health and well-being
- Protect and restore water resources
- Protect, enhance and restore biodiversity and ecosystem services
- Promote sustainable and regenerative material resources cycles
- Build a greener economy
- Enhance social equity, environmental justice and community quality of life

LEED v4: MORE BUILDING TYPES

Public and private sector building project teams now use LEED on a more diverse collection of projects than ever before. LEED v4 was designed to address the unique needs and challenges of a variety of different building and space types. It currently includes 21 different market sector adaptations.

Projects such as warehouses and distribution centers, data centers, laboratories, hotels and motels, existing retail, existing schools, existing multifamily, and mid-rise residential buildings are now specifically addressed within LEED.

LEED FOR HOMES v4 WORKS WITH UPDATED ENERGY STAR STANDARDS

LEED's Homes rating system also has been updated under v4. For single-family and low-rise (3 stories or fewer) residential buildings, it builds in the latest ENERGY STAR for Homes energy efficiency standard (Version 3). LEED v4 Homes includes ENERGY STAR for Homes checklist requirements, and either the ENERGY STAR performance requirement (currently a HERS rating of 75 in v4) or prescriptive path.

These changes to LEED v4 Homes will be helpful to jurisdictions across the country that use LEED on publicly funded housing projects and in incentives to green private sector residential projects. The system's updates better align project's design, modeling, and certification processes. LEED for Homes v4 is recognized for favorable mortgage products and terms by Fannie Mae and the Federal Housing Administration.

PUBLIC SECTOR BUILDINGS ARE USING LEED v4

LEED v4 is already in practice in numerous building projects in the United States and internationally. Examples of public buildings that have earned v4 include:

- Maple Dale School (Fox Point, WI) was the first project certified under LEED v4 for Operations and Maintenance, achieving Gold certification. The public elementary school, which achieved certification in 2014, installed an 11kW solar electric system and also achieved a 26 percent reduction in total water consumption.
- Downey Energy Resource Center (Downey, CA) is a resource facility that provides information on building energy technology to business customers. The 44,500 square foot building was built in 1995, and earned Platinum certification under LEED v4 for Operations and Maintenance. Eighty percent of materials used were recycled, reclaimed, contain recycled content or are from renewable resources.

LEED POLICIES IN GOVERNMENT

Governments at the local, state, and federal levels put LEED into practice in their own buildings ("leadership by example") and by offering various incentives to promote private sector use of LEED. The leadership-by-example policies not only commit public structures to the many benefits of green

[1] Projects that were already registered for v3/LEED 2009 may certify in that system, or choose to upgrade to v4. See details at http://www.usgbc.org/articles/registration-close-and-sunset-dates.

building but also serve as an important demonstration. These policies have been shown to provide valuable spillover effects, such as supporting a skilled green building workforce.[2] For example, in 2014, the green building industry supported over two million workers nationwide and, by 2018, LEED projects are estimated to directly contribute 386,000 jobs.[3]

LEED can be a useful tool for governments to work towards their own adopted goals around energy, sustainability, resilience and/or climate change. An array of federal, state and local bodies reference LEED as a core element of their green building policies. With LEED v4, governments can expect an ever higher performance – along with more flexibility. Several entities are already underway in adjusting their policies to reflect the latest version of LEED. For example, New York City adopted LEED v4 Gold certification for many new capital projects.

Arlington County, Virginia has enacted a tiered benefit system that rewards LEED certified projects with bonuses for greater development density, which primarily encompasses developments of hotels, office buildings, residential buildings and mixed-use projects. The initiative, the Green Building Incentive Program, was established in 1999 but has been updated periodically to keep up with changing technologies and evolving standards.[4] In 2014, Arlington County adopted LEED v4 as the new standard for the incentive, making LEED v4 a requirement for newly permitted projects beginning in January 2015.

LEED v4 ALIGNS WELL WITH FEDERAL AGENCY REQUIREMENTS AND GOALS

Federal agencies use green building certification to meet their energy and sustainability goals for public facilities. The U.S. General Services Administration (GSA) is tasked with evaluating green building certification systems every five years in order to identify a system and certification level "most likely to encourage a comprehensive and environmentally sound approach to certification of green buildings" in the federal government. GSA's Office of High-Performance Green Buildings recommends to the Secretary of Energy the green building certification system to be used in the federal government, and has recommended LEED since 2006.

In GSA's review of LEED v4, it found that v4 "generally aligned well" with federal requirements, and is more aligned with these standards than ever. GSA also reconfirmed LEED as a consensus-based standard. The GSA's report uniquely positions LEED as a benchmark for continued progress in government sustainability. In March 2016, GSA adopted LEED v4 Gold standards in its requirements for new construction and major renovation.

WHAT DOES IT COST?

Building green does not have to cost more than conventional construction. Often, the process reveals inefficiencies that can be avoided, thereby yielding important cost savings in both in the construction process and also in operations. It can also boost occupant satisfaction and building value. Case studies of early projects pursuing LEED v4 suggest similar results. Superior levels of sustainability can be achieved with minimal additional costs when project teams commit early and fully to the integrative design process.

In 2015, BuildingGreen analyzed a four-story, 47,000 square foot medical office building certified to the LEED v2009 Gold level for New Construction to determine additional costs that would be involved with meeting minimum prerequisites to earn certification under LEED v4. The study revealed that this project would require an additional $9,000 to achieve LEED v4 certification at the Certified level, amounting to 0.05% of the total original cost. For the same project to reach LEED v4 Gold certification, an additional cost of $78,400 would be required, amounting to 0.533% of the original total cost.[5]

The study shows that, in this case, a modest level of increased investment (from 0.05% - 0.5%) can achieve substantially higher sustainability outcomes and rewards. For building owners taking this extra step, it means they are invested not only in the property itself, but also in demonstrating advanced building strategies and technologies for the benefit of the community.

LEARN MORE ABOUT LEED v4

LEED v4 general info

Information on sunset of LEED v3/2008/2009

Article on federal government review of LEED v4

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[2] See, e.g., T. Simcoe and M. Toffel, Public Procurement and the Private Supply of Green Buildings, National Bureau of Economic Research, Working Paper 18385 (2012).

[3] For additional information see http://www.usgbc.org/articles/infographic-usgbc%E2%80%99s-green-building-economic-impact-report

[4] History of the program is available here: http://environment.arlingtonva.us/energy/green-building/program-history/

[5] Full study is available here: https://www2.buildinggreen.com/product/cost-leed-v4-2015