RESOLUTION

Council of Graduate Students – University of Minnesota

Date: November 12, 2008
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Topic: Graduate Support for Exploration of Installation of Green Roofs Wherever Possible on Future and Existing University of Minnesota Buildings
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WHEREAS environmental sustainability is a crucial, global goal reflected by various practices, pursuits, and studies for both faculty and students at the University of Minnesota;

WHEREAS University of Minnesota President Robert Bruininks has, as of January 22nd of this year, signed a landmark University Presidents Climate Commitment to minimize negative environmental impact and bestowed upon VP for University Services Kathleen O'Brien an official capacity to oversee the University's sustainability efforts, further evidencing the University's timely integration of sustainability into its short- and long-term goals;

WHEREAS current economic turmoil and forthcoming University budgetary cutbacks signify a need for creative, energy-efficient solutions;

WHEREAS the installation of green roofs (roof cover with soil and vegetation on top) on business property—a practice rooted in European environmental stewardship for over three decades—is fast becoming a popular method of incorporating economically-feasible, sustainable design in the United States in metropolitan areas ranging from Seattle to Chicago, with Cincinnati recently announcing that it plans to become a nationwide "leader" in such practices[1];

WHEREAS green roofs provide the following key social and economic benefits:

- Replacement costs over 50 years cut by up to 50% due to 2x-longer roof lifecycle[2] (based on reduced UV exposure and reduced need for structural membrane replacement)
- Reduce heating and cooling costs due to increased insulation from temperature fluctuation and evaporated moisture[3]
- Existing life cycle analyses have shown upfront costs to be mitigated by near- and long-term energy (cooling costs cut by 20-30% for a single building story), drainage, and maintenance savings, leaving green roofs within 10% of conventional roof cost[4]
- 10% margin further mitigated by aforementioned life-cycle term advantage over conventional roofs
- Provide additional sound insulation and attractive green urban space;

[1] http://ap.google.com/article/ALeqM5hZK4VIbqyogxqIjLmNJUVgvXxyIQD93I9SF81
[2] http://www.greenroofs.com/greenroofs101/faqs.htm
[3] http://www.mngreenroofs.org/benefits
[4] Exemplified by 2004 Paladino feasibility study:
http://your.kingcountry.gov/solidwaste/greenbuilding/documents/kcgreenroofstudy_final.pdf

WHEREAS green roofs can increase the absorption of water by at least 70% in the summer and up to 50% in the winter in the Midwest, thereby decreasing runoff; and can also increase the general air quality in urban areas[5];

WHEREAS such practices have been already exemplified by the Minneapolis Public Library, Target Center renovation plans, and Big Ten competitor Michigan State University via its cutting-edge Green Roof Research Program[6];

BE IT SO RESOLVED that the Council of Graduate Students wholeheartedly encourages the University to become a regional and nationwide academic leader in sustainability by investing in the responsible and careful installation, wherever possible, of green roofs on the flat-surfaced tops of future University building designs. Furthermore, COGS encourages the exploration of retrofitting older building designs with green roof solutions wherever economically feasible.

[5] http://preview.informedesign.umn.edu/_news/aug_v04r-p.pdf
[6] http://www.hrt.msu.edu/greenroof/#Benefits%20of%20green%20roofs