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March 11, 2013

To: Victoria Park Design Advisory Committee Members

From: Don Ganje, FASLA

Re: Sustainable Sites Initiative in regards to Victoria Park

At the request of Kent Petterson, a memo summarizing Sustainable Sites Initiative (SITES) and has been completed. Mr. Petterson suggested Victoria Park receive official SITES accreditation and this memo has been prepared to briefly explain to all Committee members the criteria Victoria Park would have to meet to be a SITES accredited project. Specific information on SITES can be accessed at the following website:

http://www.sustainablesites.org

Summary of SITES

SITES is an interdisciplinary partnership with American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center, and the United States Botanic Garden. The Initiative's development of site-specific benchmarks is grounded in an understanding of healthy systems and natural processes.

Sustainable Sites Initiatives defines sustainability as "design, construction, operations, and maintenance practices that meet the needs of the present without compromising the ability of future generations to meet their own needs." Sustainable performance benchmarks will enable built landscapes to support natural ecological functions by protecting existing ecosystems and regenerating ecological capacity where it has been lost. These guiding principles are:

Guiding Principles of a Sustainable Site

Do no harm

Make no changes to the site that will degrade the surrounding environment. Promote projects on sites where previous disturbance or development presents an opportunity to regenerate ecosystem services through sustainable design.

Precautionary principle

Be cautious in making decisions that could create risk to human and environmental health. Some actions can cause irreversible damage. Examine a full range of alternatives—including no action—and be open to contributions from all affected parties.

Design with nature and culture

Create and implement designs that are responsive to economic, environmental, and cultural conditions with respect to the local, regional, and global context.

Use a decision-making hierarchy of preservation, conservation, and regeneration

Maximize and mimic the benefits of ecosystem services by preserving existing environmental features, conserving resources in a sustainable manner, and regenerating lost or damaged ecosystem services.

Provide regenerative systems as

intergenerational equity

Provide future generations with a sustainable environment supported by regenerative systems and endowed with regenerative resources.

Support a living process

Continuously re-evaluate assumptions and values and adapt to demographic and environmental change.

Use a systems thinking approach

Understand and value the relationships in an ecosystem and use an approach that reflects and sustains ecosystem services; re-establish the integral and essential relationship between natural processes and human activity.

Use a collaborative and ethical approach

Encourage direct and open communication among colleagues, clients, manufacturers, and users to link long-term sustainability with ethical responsibility.

Maintain integrity in leadership and research

Implement transparent and participatory leadership, develop research with technical rigor, and communicate new findings in a clear, consistent, and timely manner.

Foster environmental stewardship

In all aspects of land development and management, foster an ethic of environmental stewardship—an understanding that responsible management of healthy ecosystems improves the quality of life for present and future generations.

During April of 2010, a number of pilot projects were completed to test and refine the *Guidelines and Performance Benchmarks 2009* and its rating system over the course of two years. These pilot projects have recently been completed and SITES is expected to release the complete 2013 Rating System and Reference Guide mid-2013. At that time, open enrollment will begin for any project to pursue certification. Please note that the guidelines and benchmarks summarized below are based on 2009 standards and do *not* reflect the final version.

Guidelines and Performance Benchmarks

The Guidelines and Performance Benchmarks encompass a series of prerequisites and credits for measuring site sustainability. Benchmarks outlined as a "Prerequisite" are required and must be met to participate in the voluntary program. Benchmarks outlined under "Credits" are optional, but a certain number must be attained for a project to achieve recognition as a Sustainable Site.

A rating system has been developed that weights certain exercises based on a 250 – point system. Prerequisites are required and therefore are not assigned a point value. Credits are assigned a point and in many cases offer a range of points. SITES will recognize projects that have achieved all the prerequisites and at least 40 percent of total points. Beyond the basic certification level, projects may complete additional credits to achieve higher levels of certification.

2009 Rating System	250 Points Total
One Star:	100 points (40% of total points)
Two Stars:	125 points (50% of total points)
Three Stars:	150 points (60% of total points)
Four Stars:	200 points (80% of total points)

Prerequisites and credits are organized into the following nine sections:

- 1. Site Selection
- 2. Pre-Design Assessment and Planning
- 3. Site Design Water
- 4. Site Design Soil and Vegetation
- 5. Site Design Materials Selection
- 6. Site Design Human Health and Well-Being
- 7. Construction
- 8. Operations and Maintenance
- 9. Monitoring and Innovation

A full listing of Guidelines and Performance Benchmarks 2009 are available on the project website, but an overall listing of Prerequisites and Credits are provided at the end of this document.

City's Position on SITES

As indicated in the meeting notes from the Victoria Design Advisory Meeting #3 held December 4, 2012, the City stated that SITES has not been adopted by City of Saint Paul. The City has concerns about expending funds towards a policy that has not been adopted. However, the City is committed to referring to SITES guidelines as mock SITES accreditation for Victoria Park.

INDEX OF PREREQUISITES AND CREDITS

1. Site Selection 21 possible points

Select locations to preserve existing resources and repair damaged systems	
Prerequisite 1.1: Limit development of soils designated as prime farmland, unique farmland, and	
farmland of statewide importance	15
Prerequisite 1.2: Protect floodplain functions	19
Prerequisite 1.3: Preserve wetlands	22
Prerequisite 1.4: Preserve threatened or endangered species and their habitats	24
Credit 1.5: Select brownfields or greyfields for redevelopment (5–10 points)	26
Credit 1.6: Select sites within existing communities (6 points)	28
Credit 1.7: Select sites that encourage non-motorized transportation and use of public transit (5 points)	30

2. Pre-Design Assessment and Planning 4 possible points

Plan for sustainability from the onset of the project

Prerequisite 2.1: Conduct a pre-design site assessment and explore opportunities for site sustainability	33
Prerequisite 2.2: Use an integrated site development process	44
Credit 2.3: Engage users and other stakeholders in site design (4 points)	46

3. Site Design—Water 44 possible points

Protect and restore processes and systems associated with a site's hydrology

4.	Site Design—Soil and Vegetation 51 possible points	
	Credit 3.8: Maintain water features to conserve water and other resources (1–4 points)	85
	Credit 3.7: Design rainwater/stormwater features to provide a landscape amenity (1–3 points)	82
	Credit 3.6: Protect and enhance on-site water resources and receiving water quality (3–9 points)	78
	Credit 3.5: Manage stormwater on site (5–10 points)	63
	Credit 3.4: Rehabilitate lost streams, wetlands, and shorelines (2–5 points)	60
	Credit 3.3: Protect and restore riparian, wetland, and shoreline buffers (3–8 points)	57
	baseline (2–5 points)	54
	Credit 3.2: Reduce potable water use for landscape irrigation by 75 percent or more from established	
	Prerequisite 3.1: Reduce potable water use for landscape irrigation by 50 percent from established baseline	49

Protect and restore processes and systems associated with a site's soil and vegetation	
Prerequisite 4.1: Control and manage known invasive plants found on site	88
Prerequisite 4.2: Use appropriate, non-invasive plants	90
Prerequisite 4.3: Create a soil management plan	92

Guidelines and Performance Benchmarks 2009

	Credit 4.4: Minimize soil disturbance in design and construction (6 points)	95
	Credit 4.5: Preserve all vegetation designated as special status (5 points)	99
	Credit 4.6: Preserve or restore appropriate plant biomass on site (3–8 points)	101
	Credit 4.7: Use native plants (1–4 points)	109
	Credit 4.8: Preserve plant communities native to the ecoregion (2–6 points)	111
	Credit 4.9: Restore plant communities native to the ecoregion (1–5 points)	114
	Credit 4.10: Use vegetation to minimize building heating requirements (2–4 points)	116
	Credit 4.11: Use vegetation to minimize building cooling requirements (2–5 points)	118
	Credit 4.12: Reduce urban heat island effects (3–5 points)	120
	Credit 4.13: Reduce the risk of catastrophic wildfire (3 points)	122
5.	Site Design—Materials Selection 36 possible points	
	Reuse/recycle existing materials and support sustainable production practices	
	Prerequisite 5.1: Eliminate the use of wood from threatened tree species	124
	Credit 5.2: Maintain on-site structures, hardscape, and landscape amenities (1–4 points)	125
	Credit 5.3: Design for deconstruction and disassembly $(1-3 \text{ points})$	126
	Credit 5.4: Reuse salvaged materials and plants (2–4 points)	128
	Credit 5.5: Use recycled content materials (2–4 points)	130
	Credit 5.6: Use certified wood (1–4 points)	132
	Credit 5.7: Use regional materials (2–6 points)	133
	Credit 5.8: Use adhesives, sealants, paints, and coatings with reduced VOC emissions (2 points)	135
	Credit 5.9: Support sustainable practices in plant production (3 points)	136
	Credit 5.10: Support sustainable practices in materials manufacturing (3–6 points)	138
6.	Site Design—Human Health and Well-Being 32 possible points	
	Build strong communities and a sense of stewardship	
	Credit 6.1: Promote equitable site development (1–3 points)	142
	Credit 6.2: Promote equitable site use (1–4 points)	144
	Credit 6.3: Promote sustainability awareness and education (2–4 points)	146
	Credit 6.4: Protect and maintain unique cultural and historical places (2–4 points)	149
	Credit 6.5: Provide for optimum site accessibility, safety, and wayfinding (3 points)	152
	Credit 6.6: Provide opportunities for outdoor physical activity (4–5 points)	156
	Credit 6.7: Provide views of vegetation and quiet outdoor spaces for mental restoration (3–4 points)	161
	Credit 6.8: Provide outdoor spaces for social interaction (3 points)	165
	Credit 6.9: Reduce light pollution (2 points)	168
7.	Construction 21 possible points	
	Minimize effects of construction-related activities	
	Prerequisite 7.1: Control and retain construction pollutants	170
	Prerequisite 7.2: Restore soils disturbed during construction	172
	Credit 7.3: Restore soils disturbed by previous development (2–8 points)	180
	Credit 7.4: Divert construction and demolition materials from disposal (3–5 points)	185
	Credit 7.5: Reuse or recycle vegetation, rocks, and soil generated during construction (3–5 points)	187
	Credit 7.6: Minimize generation of greenhouse gas emissions and exposure to localized	
	air pollutants during construction (1–3 points)	188

8. Operations and Maintenance 23 possible points

Maintain the site for long-term sustainability Prerequisite 8.1: Plan for sustainable site maintenance 190 **Prerequisite 8.2:** Provide for storage and collection of recyclables 198 Credit 8.3: Recycle organic matter generated during site operations and maintenance (2-6 points) 199 Credit 8.4: Reduce outdoor energy consumption for all landscape and exterior operations (1-4 points) 201 Credit 8.5: Use renewable sources for landscape electricity needs (2–3 points) 203 Credit 8.6: Minimize exposure to environmental tobacco smoke (1–2 points) 204 Credit 8.7: Minimize generation of greenhouse gases and exposure to localized air pollutants during landscape maintenance activities (1–4 points) 206 Credit 8.8: Reduce emissions and promote the use of fuel-efficient vehicles (4 points) 208 9. Monitoring and Innovation 18 possible points Reward exceptional performance and improve the body of knowledge on long-term sustainability Credit 9.1: Monitor performance of sustainable design practices (10 points) 210 Credit 9.2: Innovation in site design (8 points) 214

