GREEN = GOLD
Demonstrating Sustainability to Achieve SITES Gold in Our Nation's Capital

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Senior Water Resources Engineer
Meliora Design
Image Credits: USBG & Andropogon Associates
Project Team

Clients

Landscape Architect

Utilities, Irrigation, Lighting design

Civil Engineer

Construction Manager
**SITES Rating System**

Like LEED for landscapes

- Design guidelines that are **performance based**
- Incentivizes **regenerative design**
- 18 Pre-requisites must be met
- 48 Other Credits in various categories
- 200 points possible

<table>
<thead>
<tr>
<th>SITES v2 Certification Levels:</th>
<th>200 Points Total</th>
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<tbody>
<tr>
<td>Certified</td>
<td>70 points</td>
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<tr>
<td>Silver</td>
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CREDIT CATEGORIES

- SITE CONTEXT
- PRE-DESIGN ASSESSMENT + PLANNING
- SITE DESIGN
- CONSTRUCTION
- OPERATIONS + MAINTENANCE
- EDUCATION + PERFORMANCE MONITORING
- INNOVATION OR EXEMPLARY PERFORMANCE
Frédéric Auguste Bartholdi

Bartholdi in 1898
Site Context

- National Mall
- US Capitol
- Vet Memorial
- Project Site
- House of Representatives
Project Goals

• Home landscape demonstration garden for over 80 years

• ADA Access to new American Veterans Disabled for Life Memorial

• Support human health and well being

• Protect existing soils and vegetation

• Provide refuge in urban environment

• Continue garden education programs
Challenging Existing Soils

- Unforeseen subsurface conditions
- Left in place, recycled or used as fill at the USBG growing facility
Protect Valuable Existing Vegetation and Soils
Ecology & Soils

- Native and appropriately adapted plants
- Conserved existing appropriate native plants
- Added significant biomass
- Restored soil health and amended soils
Water

- No permanent irrigation
- Porous Unit Pavers
- Ten Bioretention areas
- Retrofitted fountain as bioretention area
- Carnivorous plant bog
- Manages the 95th percentile storm event
- All of these features are visibly and physically accessible
- Reduces stormwater loads to city sewer and will decrease CSO events
Washington DC Stormwater

- Potomac River Watershed
- Combined Sewer Area
- Managed enough stormwater runoff to generate Stormwater Retention Credits, sold on market
Energy

- 81% reduction in lighting energy consumption using LED lamps in all existing and new lights.
- A 5-year renewable energy credit (Green-e certified green power) = 100% of electrical energy usage for Park.
Materials

- Recycling receptacles and all green waste is composted
- High SRI value reduces heat island effect
- Salvaged materials 11%
- 11% of materials contain recycled content
- 61% of materials regional
- 100% of structural waste and 99.84% of roadway and infrastructure waste diverted from landfill
- Contractors required to vet materials suppliers
Economic

- Low maintenance materials and vegetation result in low maintenance costs
- Prioritized the hiring of local individuals, providing a living wage
- Purchased materials and construction services from locally owned and operated businesses
- Materials sourced locally
Human Health + Wellness

- Sustainability awareness + education through classes, programs, signage and a field journal
- Community gathering spaces
- Visual and physical access to vegetation
- White noise created by fountain
- Tobacco free
Maintenance & Monitoring

- Site Maintenance Plan
- Dedicated Maintenance Site Manager
- Monitoring Human Health and Well Being credits through surveys to site users
- Data collected through monitoring will be posted on usbg.gov, educational programs and talks.
Key Takeaways

• Rigorous, ensures thinking throughout process
• Integrated design
• Not just “green washing” or seeking low hanging fruit
• Certification is a heavy lift and takes a lot of effort and investment, but early adaptors tend to over pay
• Great communication & marketing tool
• SITES is a great reference document and resource for any project