Tapping Site Planning and Design

Kevin S. Holden, RLA, ASLA
Landscape Architecture
Community of Practice Leader
USACE
17 June 2010
Site Planning and Design

1. How is *Site Planning and Design* foundational to sustainable development?

2. What role does the *Landscape Architect* play in collaboration with the Architect, Engineer, and Master Planner?
Quantitative

LEED 2009 for New Construction and Major Renovations

100 base points
(6 possible Innovation in Design and 4 Regional Priority points)

Certified: 40–49 points
Silver: 50–59 points
Gold: 60–79 points
Platinum: 80 points and above

50 possible points from The Site
PROXIMITY HOTEL
GREENSBORO, NORTH CAROLINA

39% less energy use
34% less water use
87% construction waste diverted from the landfill

LEED® Facts
Proximity Hotel
Greensboro, North Carolina

LEED for New Construction v2.2
Certification awarded: October 6, 2008

<table>
<thead>
<tr>
<th>Category</th>
<th>Points Achieved</th>
<th>Total Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable Sites</td>
<td>12/14</td>
<td></td>
</tr>
<tr>
<td>Water Efficiency</td>
<td>4/5</td>
<td></td>
</tr>
<tr>
<td>Energy &amp; Atmosphere</td>
<td>16/17</td>
<td></td>
</tr>
<tr>
<td>Materials &amp; Resources</td>
<td>6/13</td>
<td></td>
</tr>
<tr>
<td>Indoor Environmental Quality</td>
<td>12/15</td>
<td></td>
</tr>
<tr>
<td>Innovation &amp; Design</td>
<td>5/5</td>
<td></td>
</tr>
</tbody>
</table>

*Out of a possible 65 points

Quantitative

12 of 55 points from sustainable sites Category
Qualitative
Qualitative
The Landscape Architect (LA)
The Landscape Architect (LA)
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
Washington Mutual Center Green Roof
Seattle, Washington
NE Siskiyou Green Street
Portland, Oregon
NE Siskiyou Green Street
Portland, Oregon
NE Siskiyou Green Street
Portland, Oregon
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
The Red Ribbon, Tanghe River Park
Qinhuangdao City, Hebei Province, China
High Line Park
New York City, New York
High Line Park
New York City, New York
High Line Park
New York City, New York
High Line Park
New York City, New York
High Line Park
New York City, New York
Site Planning and Design is foundational to sustainable development.
REWARDS FOR STEWARDSHIP

When we create sustainable landscapes, the landscapes give back:

- Cleaner water and air
- Cooler cities
- Carbon capture that mitigates climate change
- Resource conservation and regeneration
- Greater energy efficiency
- Habitat conservation and biodiversity
- Lower costs and improved performance from stormwater management
- Better living conditions
## LEED Points

### Sustainable Sites

<table>
<thead>
<tr>
<th>Credit Number</th>
<th>Credit Description</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prerequisite 1</td>
<td>Construction Activity Pollution Prevention</td>
<td>Required</td>
</tr>
<tr>
<td>1</td>
<td>Site Selection</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Development Density and Community Connectivity</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Brownfield Redevelopment</td>
<td>1</td>
</tr>
<tr>
<td>4.1</td>
<td>Alternative Transportation—Public Transportation Access</td>
<td>6</td>
</tr>
<tr>
<td>4.2</td>
<td>Alternative Transportation—Bicycle Storage and Changing Rooms</td>
<td>1</td>
</tr>
<tr>
<td>4.3</td>
<td>Alternative Transportation—Low-Emitting and Fuel-Efficient Vehicles</td>
<td>3</td>
</tr>
<tr>
<td>4.4</td>
<td>Alternative Transportation—Parking Capacity</td>
<td>2</td>
</tr>
<tr>
<td>5.1</td>
<td>Site Development—Protect or Restore Habitat</td>
<td>1</td>
</tr>
<tr>
<td>5.2</td>
<td>Site Development—Maximize Open Space</td>
<td>1</td>
</tr>
<tr>
<td>6.1</td>
<td>Stormwater Design—Quantity Control</td>
<td>1</td>
</tr>
<tr>
<td>6.2</td>
<td>Stormwater Design—Quality Control</td>
<td>1</td>
</tr>
<tr>
<td>7.1</td>
<td>Heat Island Effect—Non-roof</td>
<td>1</td>
</tr>
<tr>
<td>7.2</td>
<td>Heat Island Effect—Roof</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>Light Pollution Reduction</td>
<td>1</td>
</tr>
</tbody>
</table>
LEED Points

24 Possible Points

Water Efficiency 10
- Prerequisite 1 Water Use Reduction Required
- Credit 1 Water Efficient Landscaping 2-4
- Credit 2 Innovative Wastewater Technologies 2
- Credit 3 Water Use Reduction 2-4

Materials and Resources
- Credit 3 Materials Reuse 1-2
- Credit 4 Recycled Content 1-2
- Credit 5 Regional Materials 1-2
- Credit 6 Rapidly Renewable Materials 1
- Credit 7 Certified Wood 1

Innovation in Design
- Credit 1 Innovation in Design 1-5
- Credit 2 LEED Accredited Professional 1