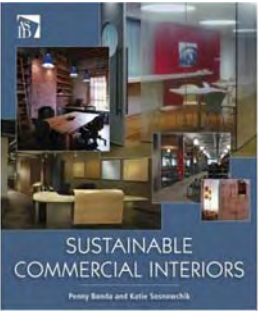


Sustainable Commercial Interiors

- Step-by-step guide to designing environmentally friendly commercial interiors
- LEED-CI and certification programs
- In-depth information about interior finishes and furnishings
- Materials and life-cycle thinking
- Indoor environmental quality, including acoustics, thermal comfort and daylighting & views



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Sustainable Residential Interiors

- Critical thinking about environmental issues within homes
- Helpful checklist for greening projects and specifications
- In-depth information about interior finishes and furnishings
- Questions for manufacturers & vendors
- Effective methods of marketing sustainable design services



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Eco-Luxury Hotel: *Real World View, Steps Taken*

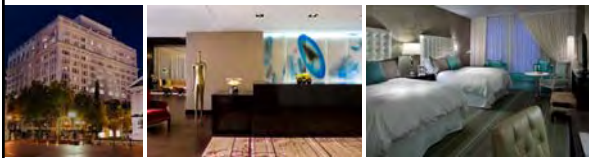
Clifford Tuttle, ASID, LEED AP, NEWH
ForrestPerkins



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LEADERSHIP IN ENERGY & ENVIRONMENTAL DESIGN and the NINES

a Sustainable Hospitality Case Study



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Leadership in Energy and Environmental Design

A leading-edge system
for certifying the
greenest performing
buildings in the world

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What Is Green Building?

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LEED Decorset

To: Nines, Portland

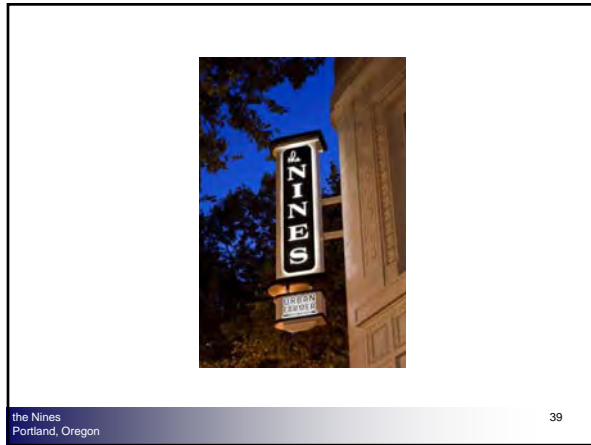
Approved by AP73 On-line
By: Nines, Oregon, Label: 7
Building documentation

BRIGHTWORKS

Category	Requirement	Score	Requirement	Score
Sustainable Sites	SS-1: Sustainable Sites	4	SS-10: Stormwater Management	4
	SS-2: Access to Public Transportation	4	SS-11: Heat Island Reduction	4
	SS-3: Bicycle Facilities	4	SS-12: Light Pollution Reduction	4
	SS-4: Stormwater Management	4	SS-13: Construction Pollution Prevention	4
	SS-5: Air Quality	4	SS-14: Construction Erosion Control	4
	SS-6: Air Quality	4	SS-15: Construction Erosion Control	4
	SS-7: Air Quality	4	SS-16: Construction Erosion Control	4
	SS-8: Air Quality	4	SS-17: Construction Erosion Control	4
	SS-9: Air Quality	4	SS-18: Construction Erosion Control	4
	SS-10: Stormwater Management	4	SS-19: Construction Erosion Control	4
Water Efficiency	WE-1: Water Efficient Landscaping	4	WE-2: Water Efficient Landscaping	4
	WE-2: Water Efficient Landscaping	4	WE-3: Water Efficient Landscaping	4
	WE-3: Water Efficient Landscaping	4	WE-4: Water Efficient Landscaping	4
	WE-4: Water Efficient Landscaping	4	WE-5: Water Efficient Landscaping	4
	WE-5: Water Efficient Landscaping	4	WE-6: Water Efficient Landscaping	4
	WE-6: Water Efficient Landscaping	4	WE-7: Water Efficient Landscaping	4
	WE-7: Water Efficient Landscaping	4	WE-8: Water Efficient Landscaping	4
	WE-8: Water Efficient Landscaping	4	WE-9: Water Efficient Landscaping	4
	WE-9: Water Efficient Landscaping	4	WE-10: Water Efficient Landscaping	4
	WE-10: Water Efficient Landscaping	4	WE-11: Water Efficient Landscaping	4
Energy & Atmosphere	EA-1: Fundamental Refrigerant Management	4	EA-2: Fundamental Refrigerant Management	4
	EA-2: Fundamental Refrigerant Management	4	EA-3: Fundamental Refrigerant Management	4
	EA-3: Fundamental Refrigerant Management	4	EA-4: Fundamental Refrigerant Management	4
	EA-4: Fundamental Refrigerant Management	4	EA-5: Fundamental Refrigerant Management	4
	EA-5: Fundamental Refrigerant Management	4	EA-6: Fundamental Refrigerant Management	4
	EA-6: Fundamental Refrigerant Management	4	EA-7: Fundamental Refrigerant Management	4
	EA-7: Fundamental Refrigerant Management	4	EA-8: Fundamental Refrigerant Management	4
	EA-8: Fundamental Refrigerant Management	4	EA-9: Fundamental Refrigerant Management	4
	EA-9: Fundamental Refrigerant Management	4	EA-10: Fundamental Refrigerant Management	4
	EA-10: Fundamental Refrigerant Management	4	EA-11: Fundamental Refrigerant Management	4
Materials & Resources	MR-1: Recycled Content	4	MR-2: Recycled Content	4
	MR-2: Recycled Content	4	MR-3: Recycled Content	4
	MR-3: Recycled Content	4	MR-4: Recycled Content	4
	MR-4: Recycled Content	4	MR-5: Recycled Content	4
	MR-5: Recycled Content	4	MR-6: Recycled Content	4
	MR-6: Recycled Content	4	MR-7: Recycled Content	4
	MR-7: Recycled Content	4	MR-8: Recycled Content	4
	MR-8: Recycled Content	4	MR-9: Recycled Content	4
	MR-9: Recycled Content	4	MR-10: Recycled Content	4
	MR-10: Recycled Content	4	MR-11: Recycled Content	4
Indoor Environmental Quality	IEQ-1: Minimum Air Flow	4	IEQ-2: Minimum Air Flow	4
	IEQ-2: Minimum Air Flow	4	IEQ-3: Minimum Air Flow	4
	IEQ-3: Minimum Air Flow	4	IEQ-4: Minimum Air Flow	4
	IEQ-4: Minimum Air Flow	4	IEQ-5: Minimum Air Flow	4
	IEQ-5: Minimum Air Flow	4	IEQ-6: Minimum Air Flow	4
	IEQ-6: Minimum Air Flow	4	IEQ-7: Minimum Air Flow	4
	IEQ-7: Minimum Air Flow	4	IEQ-8: Minimum Air Flow	4
	IEQ-8: Minimum Air Flow	4	IEQ-9: Minimum Air Flow	4
	IEQ-9: Minimum Air Flow	4	IEQ-10: Minimum Air Flow	4
	IEQ-10: Minimum Air Flow	4	IEQ-11: Minimum Air Flow	4

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EXISTING BUILDING

- Meier & Frank Department Store (now Macy's) once the center of Portland's downtown shopping district.
- Terra Cotta exterior skin listed on National Historic Register.
- Bulk of building built in 3 phases in 1908, 1915, and 1938 with various roof top additions.

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DESIGN APPROACH

- Cut Atrium into building
- Creates appropriate dimension for double loaded corridor of guestrooms
- Creates location for 7,000sf ballroom
- Enclose atrium with skylight to make central interior public space
- Create small entry lobby on Morrison connect with vertical circulation


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- The Exterior Façade was maintained and restored as mandated by the National Park Service

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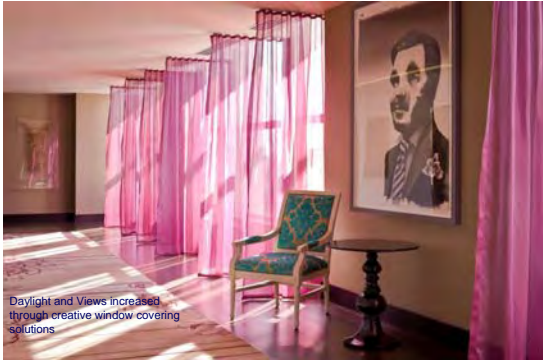


Connection to the local community through the hotel's stunning array of art commissioned through local Portland artists

Lighting Design is integrated with both decorative as well as low energy architectural lighting solutions

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Daylight and Views increased through creative window covering solutions

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LOW VOC Finishes & FSC Certified Woods

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Increased Natural Daylight through the Atrium along with Low VOC Finishes and FSC Certified Wood

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Casegoods & Seating Specified with low VOC finishes & sustainable materials

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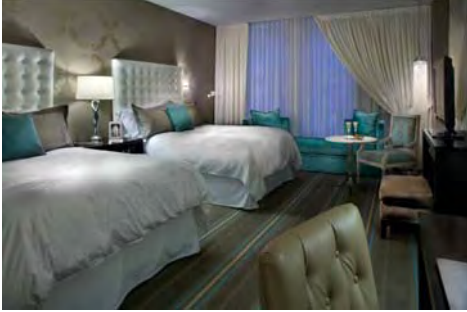
47



The Urban Farmer Restaurant utilizes locally farmed organic produce, poultry, fish & meats

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Recycled Solution Dyed Nylon Carpeting & Low VOC Finishes in all Guestrooms
Large expanses of windows were utilized to capture natural daylight and views


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Bathrooms utilize low flow aerators at lavatories

Dual Flush toilets in guestrooms
& public restrooms



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The Presidential Suite with Low VOC finishes and large expanses of windows to capture daylight & views

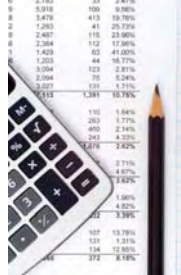
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LEED COST CASE STUDY

PARAMETERS

- LEED Silver Target
- Base Case vs. Design Case
- Establish cost premium above typical
- Include Soft Costs and Hard Costs.
- Account for incentives and operational savings.



Item	Cost	Percentage
1	3,910	9.96%
2	3,478	41.37%
3	2,803	41.25%
4	2,487	11.03%
5	2,384	11.27%
6	1,403	61.00%
7	1,203	44.97%
8	1,084	10.24%
9	1,120	11.71%
10	1,113	13.41%
11	191	1.68%
12	203	3.77%
13	490	21.41%
14	243	4.33%
15	2,218	74.6%
16	2,714	4.57%
17	1,403	1.68%
18	1,084	4.62%
19	1,120	3.39%
20	107	13.78%
21	134	1.25%
22	134	12.88%
23	312	8.18%

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COST FOR LEED / SUSTAINABILITY BENEFITS ANALYSIS

The Nines, A Starwood Luxury Collection Property, Portland, OR - LEED Silver Target
Preliminary Numbers - Values specific to the Pacific NW

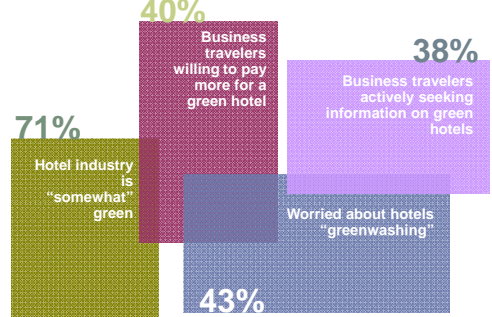
Category	Item	Amount	
Soft Costs	Incentive Registration	\$ 3,000	
	LEED Registration Fee	\$ 9,000	
	Commissioning	\$ 56,660	
	Energy model	\$ 30,720	
	LEED credit calculation	\$ 55,880	
	LEED process management	\$ 55,000	
Total Soft Costs		\$ 210,260	
Hard Cost Premiums <i>above typical to achieve sustainability goals</i>	Sustainable Sites	\$ 59,660	
	Water Efficiency	\$ 32,300	
	Energy & Atmosphere	\$ 291,750	
	Materials & Resources	\$ 100,000	
	Indoor Environmental Quality	\$ 32,000	
	Innovation & Design	\$ 4,000	
	Total Premiums	\$ 519,710	
	Soft & Hard Cost Premium <i>1.2% of cost</i>		\$ 729,970
	Incentives	State Grant Incentives	\$ 101,104
		State Tax Credit Incentives <i>(pass through)</i>	\$ 216,104
Reduced City Development Charges		\$ 280,963	
Total Incentives		\$ 598,171	
Costs Premium Less Incentives <i>0.2% of construction</i>			\$ 131,799
Utility Cost Pay Backs & Operating Expenses	Energy Cost Savings per year	\$ 101,924	
	Water & Sewage Cost Savings per year	\$ 7,854	
	Additional Ops Costs per year	\$ 3,200	
	Green Power cost per year (2yrs)	\$ 11,646	
	ROI per years 1&2	\$ 101,924	
	ROI per year 3+	\$ 106,263	
	ROI 10 years w/2% utility cost escalation	\$ 992,880	
Pay Back Period to Cover Premium		18 Months	

Nationwide Resource for Incentives: Database of Incentives for Renewables & Efficiency www.dsireusa.org

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Business Traveler Demand



- 71% Hotel industry is "somewhat" green
- 40% Business travelers willing to pay more for a green hotel
- 38% Business travelers actively seeking information on green hotels
- 43% Worried about hotels "greenwashing"

Deloitte 2008

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**Residential Sustainability:
REGREEN + Case Studies & Strategies**

Annette K. Stelmack, Allied Member ASID
Inspirit-IIc

APRIL 21-24, 2009 CHICAGO, ILLINOIS, USA
coverings
THE ULTIMATE TILE + STONE EXPERIENCE

**REGREEN Residential
Remodeling
Guidelines**

REGREEN
ASID & USGBC



US GREEN BUILDING COUNCIL
USGBC

ASID
FOUNDATION

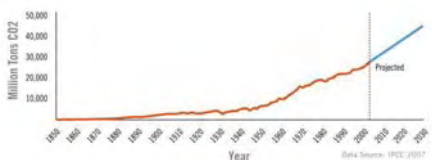
www.regreenprogram.org

Environmental Impact of Homes

In the United States, residential units...

- Consume 22% of nation's energy
- Cause 20% of greenhouse gas emissions


Global Carbon Dioxide Emissions



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Focus of REGREEN

- Whole house, systems-thinking (process and products)
- Professional integration – architects, interior designer, engineers, builders, trades
- Good design, green design



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Sustainability Addresses

- Climate control
- Energy efficiency
- Resource depletion
- Water consumption
- Degradation of ecosystems/habitat
- Indoor environmental quality
- Occupant comfort and health
- Long term durability
- Maintenance costs



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WHY BE SUSTAINABLE

'Today, we realize that to be truly sustainable, it is not enough to imagine methods of minimizing damage to the environment; instead the results must have a net positive impact on it.'

*Dennis Wedlick, AIA*⁶⁰

