



# city green building

[www.seattle.gov/dpd/greenbuilding](http://www.seattle.gov/dpd/greenbuilding)





Making green building  
**standard practice**  
in Seattle through education,  
technical assistance and incentives.



**SINGLE FAMILY RESIDENTIAL**

**MULTIFAMILY RESIDENTIAL**

**COMMERCIAL / INSTITUTIONAL**

**CITY FACILITIES**

**SUSTAINABLE COMMUNITIES**



- ❖ First LEED-based capital facilities building policy in USA, adopted in 2000
- ❖ Seattle #1 in world for LEED-rated w/ 46 projects
- ❖ City owns 10 LEED-rated buildings
- ❖ Current wave - Fire Station Levy
- ❖ 30 DPD staff LEED Accredited Professionals





- ❖ 22,000 tons construction waste recycled (30% above std practice)
- ❖ 1.6 million gallons stormwater diverted
- ❖ 3.2 million gallons water savings
- ❖ 6.9 million kilowatt hours electricity saved
- ❖ 73,000 therms gas saved

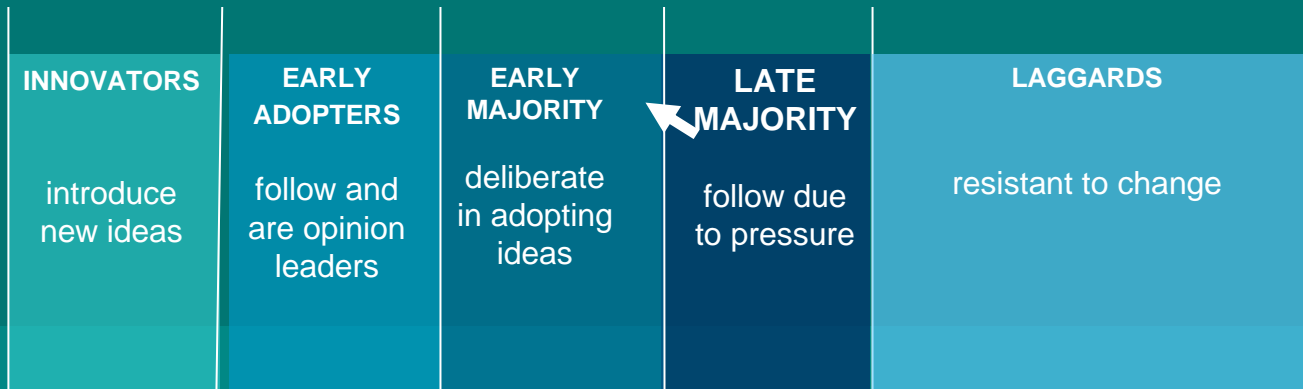
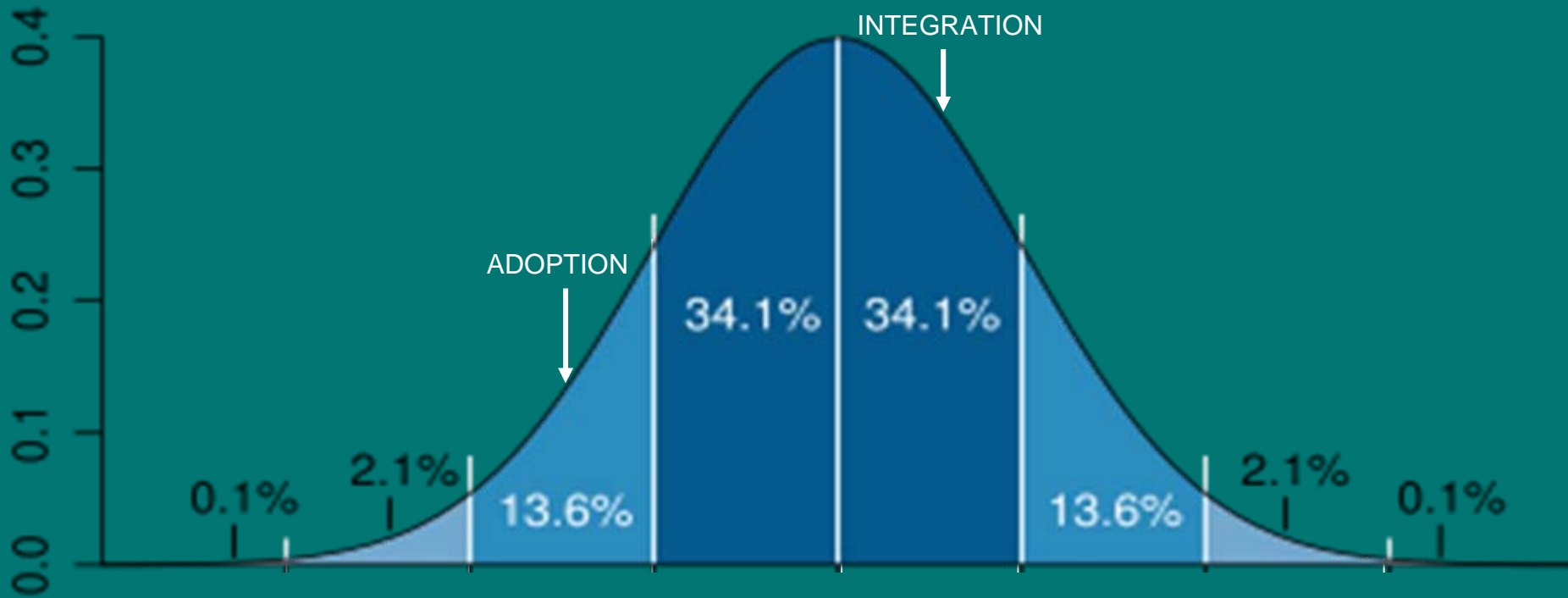
\*annual savings except for CDL waste

\*energy savings compared to ASHRAE 90.1

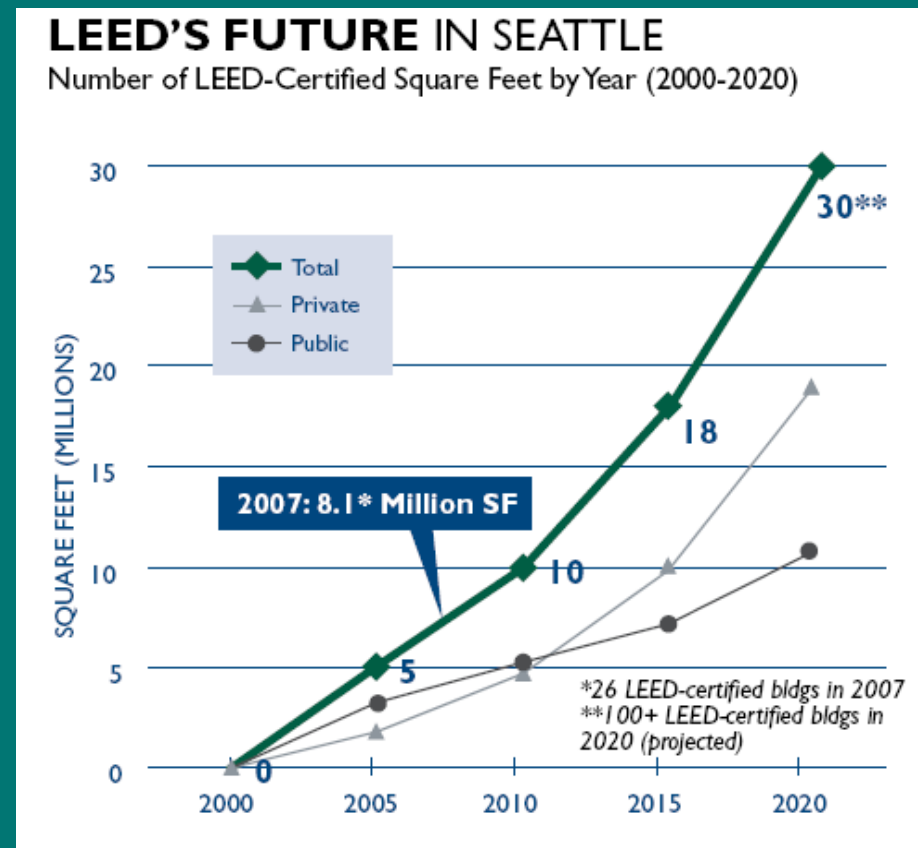


### **307 Westlake**

Seattle Biomedical Research Institute (SBRI)



- ❖ All major commercial development downtown will be LEED Silver
- ❖ Most residential development downtown will be LEED
- ❖ Colliers International predicts:
  - ❖ In coming years, will not be able to compete without green portfolio
  - ❖ 15 million sf of additional office space by 2020
  - ❖ More than 75% will achieve LEED Certification
- ❖ Real estate professionals have said that LEED Silver/Gold are “no brainers”





SCL - Seattle City Light

SPU - Seattle Public Utilities

Capital  
Cabinet

DPD - Planning and  
Development

OED -  
Economic  
Developm't

City Green Building

OSE - Sustainability & Environment

OH - Housing

referrals  
collaboration

referrals  
collaboration

City LEED  
policy

Collaboration

City LEED  
policy

referrals  
collaboration

referrals  
collaboration

### SEATTLE CITY LIGHT

- ❖ Energy Smart
- ❖ Smart Business
- ❖ Facility Assessment
- ❖ Built Smart
- ❖ MF Weatherization
- ❖ Lighting Rebates
- ❖ Green Power

### PUGET SOUND ENERGY

- ❖ Rebates
  - HVAC
  - Insulation
  - Appliances
  - Lighting & Controls
- ❖ Energy Star Transformers
- ❖ Schools
- ❖ Green Power
- ❖ Custom grants

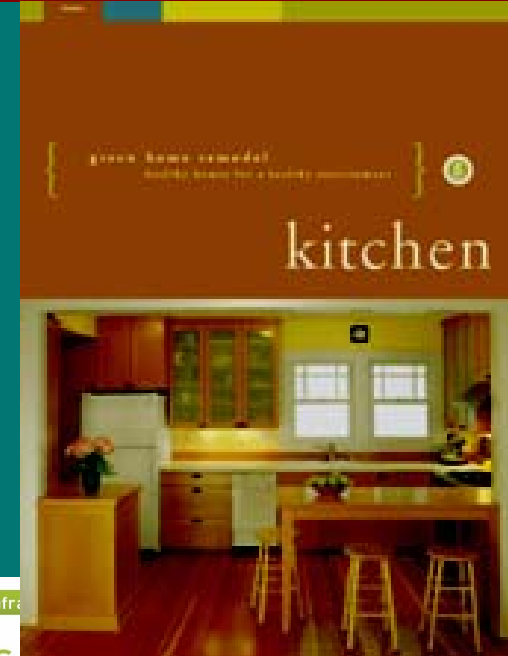
### SEATTLE PUBLIC UTILITIES

- ❖ Watersmart
  - New
  - Retrofit
- ❖ Water Efficient Irrigation
- ❖ Washwise
- ❖ Rainwise (future)
- ❖ Grant Central Station

### ADDITIONAL

- ❖ Office of Sustainability & Environment Climate Protection Fund
- ❖ Department of Neighborhoods Matching Funds
- ❖ King County Waterworks Habitat Grants Commute Trip Reduction Community Salmon Fund
- ❖ Federal Tax Credits

- ❖ Playbook for Green Buildings and Neighborhoods
- ❖ Green Remodel Guides
- ❖ Green Building Case Studies
- ❖ Research



Strategic Overview Buildings Neighborhoods Infra

## Playbook for Green Buildings + Neighborhoods

Strategic Local Climate Solutions HOME

The Playbook provides local governments with guidance and resources to rapidly advance green buildings, neighborhoods and infrastructure.

Strategic action in these sectors promotes economic development, builds healthier communities, strengthens energy independence, and supports climate protection.

Looking for resources? Go to the page where they are most relevant, or search via

**Strategic Overview**

**Green Buildings**

LEARN PLAN ACT

**Green Neighborhoods**

Green Neighborhoods are essential to action on climate change and reduce greenhouse gas emissions by 20 to 40 percent or more per person.

LEARN PLAN ACT

**Green Infrastructure**

LEARN PLAN ACT

INSPIRE. MOTIVATE. TRANSFORM.

## TRANSFORMATIONAL LECTURE SERIES

### INTEGRATION IS AN ART

Patrick Bellew, Principal, Atelier Ten

Beautiful, high performance buildings are something that the engineers and architects of Atelier Ten have proven readily achievable through creative and thorough integration of all building systems. Presenting international examples of cleverly efficient designs, Bellew will dare designers to create the most innovative integrated systems ever built.



09.25.08 – Seattle, WA – Seattle Central Library, Microsoft Auditorium, 1000 Fourth Ave.



- ❖ Updated rules for the central office core and adjoining areas, including Denny Triangle and a portion of Belltown.
- ❖ By concentrating growth in the urban center, where infrastructure exists, Seattle can help slow urban sprawl in the region.
- ❖ A single 130-unit building downtown is the equivalent of 32 acres in a typical suburban development.
- ❖ Traffic will be reduced by locating housing within walking distance to jobs and buses
- ❖ A major step towards reducing greenhouse gas emissions by 7% compared to 1990 levels.

Downtown Zoning Adopted by City Council  
April 3, 2006



| New Zoning        | Base FAR | New max. FAR | New Height Limits   |
|-------------------|----------|--------------|---|
| DOC 1             | 6        | 20           | Non-residential Uses: Unlimited<br>Residential Uses: Base height 45'<br>Height with bonus unlimited |
| DOC 2             | 5        | 14           | Non-residential Uses: 500'<br>Residential Uses: Base height 300'<br>Height limit with bonus 500'    |
| DMC 340'/290'-400 | 5        | 10           | Non-residential Uses: 340'<br>Residential Uses: Base height 290'<br>Height limit with bonus 400'    |
| DMC 240'/290'-400 | 5        | 7            | Non-residential Uses: 240'<br>Residential Uses: Base height 290'<br>Height limit with bonus 400'    |





In exchange for additional height and density —

- ❖ Achieve LEED™ Silver rating
- ❖ Contribution to affordable housing
- ❖ Also contribute to open space, historic preservation, child care

## Commercial Construction

### 25% Other

- Open Space TDR
- Landmark TDR
- Public Amenity Features
- Within-block TDR

1/2 Benaroya Hall TDR,  
required if available

1/5 Landmark TDR,  
required if available in bank

### 75% Housing/Childcare

- Housing TDR
- Housing/Childcare Bonus
  - Cash Option
  - Performance Option
- Landmark Housing TDR

17.0 DOC1  
14.0 DOC2  
10.0 DMC  
7.0 DMC

First increment of FAR above Base FAR  
for LEED certification

1.0 DOC1  
.75 DOC2  
.5 DMC  
.25 DMC

Base FAR

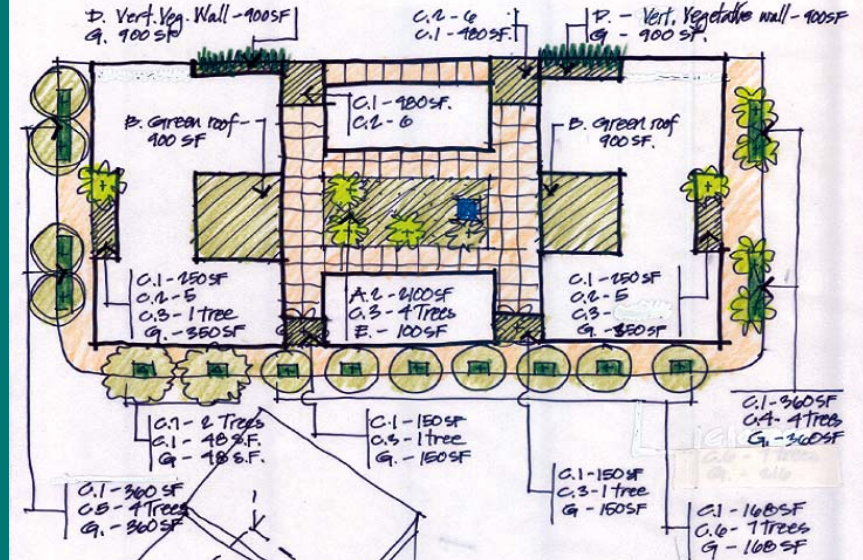
6.0 DOC1  
5.0 DOC2  
5.0 DMC

### ACRONYM GUIDE

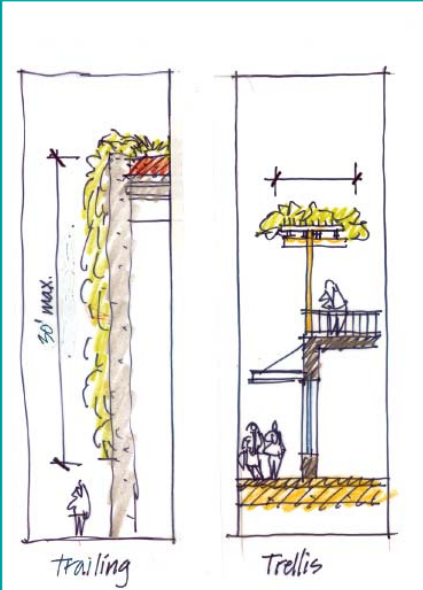
**DOC** – Downtown Office Core

**DMC** – Downtown Mixed Commercial

**FAR** – Floor Area Ratio. This is the ratio of the gross floor area in a building to the total area of the land on which it is built. For example, a building with 200,000 sf on a 20,000 sf site would have a FAR of 10.



SCORE 0.301



| ENERGY AND CLIMATE PROTECTION Design Elements  | Max Pts  | Project pts. | Submittals                            |  |
|--|--|--------------|---------------------------------------|--|
| Identify below the specific elements that will be incorporated into the project and detail others you will include.  |  |              | When                                  | What   |
|  | <b>EC-1 – Minimum 2% of total energy use from on-site renewables–</b><br><ul style="list-style-type: none"> <li>•wind,</li> <li>•solar electric,</li> <li>•solar thermal (hot water), biomass, etc., providing alternative energy <b>OR</b></li> </ul> | <b>2</b>     |                                       | Land Use pre-sub DR/MUP  |
| <b>EC-2 – On-site power generation</b><br><ul style="list-style-type: none"> <li>•Minimum 30% of heat and power of building peak load</li> <li>•Minimum 30% energy supplied from district energy</li> </ul>  |  |              |                                       |  |
| <b>EC-3 - Passive cooling/climate responsive design</b><br><ul style="list-style-type: none"> <li>•Passive solar, thermal mass, Trombe walls, etc. – quantify min. 10% contribution to total building energy use,</li> <li>•Daylighting and natural or hybrid ventilation serving more than 50% of regularly occupied spaces – calculate as per LEED requirements</li> </ul> | <b>1</b>   |              | DR/MUP                                | Highlight solutions on drawings  |
| <b>EC-4 - Comply with 2030 Challenge EC 4 is a mandatory requirement *</b><br><ul style="list-style-type: none"> <li>•60% energy &amp; fossil fuel use reduction using Energy Star Target Finder, OR</li> <li>•Document building performance 20% below Seattle Energy Code for commercial building projects and 30% below for residential projects</li> </ul>                | <b>2</b>   |              | Land Use pre-sub DR/MUP & Bldg Permit | Define approach with energy code reviewers. Include calculation strategy and reference to drawings |
| <b>EC-O – Other innovative Energy and Climate Protection design elements</b><br><ul style="list-style-type: none"> <li>•Provide proposal for alternative energy and climate strategies equivalent or greater in performance than, but not duplicating, the above</li> </ul>  | <b>1-2</b>   |              |                                       |  |



❖ Consider:

- Embodied energy
- Operating energy
- Transportation



❖ March 31 – disclosure only

❖ 2008 thru early 2009 – definition of mitigation thresholds and strategies

*Building a better Seattle.*



# thank you

Jayson Antonoff

City of Seattle Green Building Program, Energy and Climate Change Advisor

Jayson.Antonoff@Seattle.Gov

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