

# PDC

## PORTLAND DEVELOPMENT COMMISSION

**DATE:** March 25, 2009

**TO:** Board of Commissioners

**FROM:** Bruce A. Warner, Executive Director

**SUBJECT:** Report Number 09-40  
PDC's first Sustainability Report, and update on draft 2009 PDC Green Building Policy and City's High Performance Green Building Policy

### **EXECUTIVE SUMMARY**

#### **BOARD ACTION REQUESTED**

None — information only.

#### **SUMMARY**

The goal of sustainability is to simultaneously improve environmental, economic, and community health today and future generations. This is PDC's first Sustainability Report and it highlights the variety of ways in which PDC is contributing to Portland's standing as one of the greenest cities in America. These include investing in green commercial development and affordable housing, mass transit, community parks, green streets and green jobs.

This briefing will review highlights from PDC's Sustainability Report, which covers the 2007-2008 Fiscal Year and reports on the accomplishments in terms of PDC's 2007 Sustainability Plan commitments. The Report also discusses the impact of PDC's programs on individuals, communities and businesses in Portland metropolitan region.

The status of PDC Green Building Policy update will be highlighted, with sections on commercial development and tenant improvement.

The City of Portland's draft High Performance Green Building Policy, released for public comment in November 2008, will also be summarized by staff from the Bureau of Planning and Sustainability.

PDC, at the Mayor's request, is drafting the City of Portland's Economic Development Strategy. That strategy embraces sustainability as its central theme and, as such, incorporates many PDC sustainability actions. Our goal is to align and possibly merge that strategy with our existing Sustainability Plan to develop shared objectives and ensure maximum coordination. We expect to present a coordinated strategy to the Board in June.

### **BACKGROUND**

#### Sustainability Report

The production of PDC's Sustainability Report is the culmination of steps set in motion by the Portland City Council in December 2006 when it passed Resolution No. 36468, which required all bureau directors to appoint a Sustainability Liaison who would facilitate the

development of an annual Sustainability Plan, the first of which would cover the 2007-2008 FY. The following year the liaisons would develop annual Sustainability Reports, the first of which was due following the 2007-2008 FY. PDC's Sustainability Report: *Sustainability in Urban, Community, and Economic Development*, was developed in part, as a response to these directives.

### Green Building Policy

In 2001, the City Council passed Portland's first Green Building Policy. PDC then developed guidelines for that policy as it applied to PDC. Later that year, those guidelines were approved by the PDC Board of Commissioners (Board) on September 12, 2001 (Resolution No. 5754). On April 27, 2005, City Council approved Resolution No. 36310, both the City and the Board approved an updated version, *Green Building Policy Guidelines* (Resolution No. 6262).

In September 2007, PDC convened a Green and Healthy Affordable Housing Coalition that consisted of one for-profit and nine nonprofit developers, and the appropriate city staff to develop recommendations for a new green affordable housing policy. This action was prompted by the Portland City Council Resolution No. 36310 (April 27, 2005) that read in part,

THEREFORE, BE IT RESOLVED that the Portland City Council . . . directs all City Bureaus and the Portland Development Commission to . . . Update the City of Portland's Affordable Housing green building threshold and voluntary guidelines.

In November 2008, the new affordable housing policy was in a final draft form. In December 2008, after Mayor Sam Adam's announcement regarding the creation of a new Bureau of Housing, Kate Allen, the senior housing policy advisor for Commissioner Nick Fish, who is managing the creation of the new Bureau of Housing, requested that PDC continue to lead this policy effort until the Bureau of Housing is established.

PDC is also developing policy updates for the tenant improvement and commercial/retail development sections of the *Green Building Policy Guidelines*. Since 2007, the City of Portland has also been developing its next generation green building policy. PDC has worked closely with the Bureau of Planning and Sustainability to achieve a large degree of alignment between the two policies.

### ATTACHMENTS:

- A. PDC's 2007-2008 Sustainability Report: Sustainability in Urban, Community, and Economic Development
- B. PDC's 2009 Draft Green Building Policy
- C. City of Portland's Draft High Performance Green Building Policy
- D. PDC's 2005 Green Building Policy Guidelines (Board Resolution No. 6262, 2005).
- E. Board Resolution No. 5754 (2001)
- F. City Council Resolution No. 36468
- G. City Council Resolution No. 36310



# THE PORTLAND DEVELOPMENT COMMISSION

## 2007 - 2008 SUSTAINABILITY REPORT

# SUSTAINABILITY IN URBAN, COMMUNITY AND ECONOMIC DEVELOPMENT

 PDC: Sustainable Development



*Investing in Portland's Future*

**PDC**

PORTLAND DEVELOPMENT COMMISSION





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**Cover:** Salmon Sculpture, "Leap Upstream" on the New Seasons eco-roof. Like the eco-roof on the Louisa Condominiums, lower photo, all control run-off and provide insulation. Both projects received PDC funding.



*Investing in  
Portland's Future*



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*The Honorable Mayor Sam Adams:*

*I am pleased to present the Portland Development Commission's (PDC) first Sustainability Report. PDC began work on its first Sustainability Plan in 2007 by identifying six sustainability goals, 17 objectives, and 63 actions. This report: Sustainability in Urban, Community and Economic Development, documents our accomplishments in terms of that 2007-2008 Plan. It also tells the story of PDC's sustainability contributions to Portland citizens, neighborhoods and the region.*

*Sustainability includes an equitable society that uses a responsible model for economic growth and development of the built environment, using the earth's natural resources in ways that can be perpetuated indefinitely. The Portland Development Commission pursues sustainability on four separate but interdependent pathways: urban development, social equity, economic development and internal operations.*

*Report highlights include:*

- *Nine of 14 completed development projects receiving financial assistance from PDC met or surpassed our Green Building Policy and were certified as Leadership in Energy and Environmental Design (LEED) Silver or Gold, and five projects are awaiting their official LEED certification;*
- *77 businesses received sustainable economic development assistance;*
- *Working with our public partners, PDC invested \$21 million to expand the region's mass transit, green streets and neighborhood parks;*
- *PDC began allocating an average of 30 percent of tax increment financing to affordable housing development;*
- *And nearly 100 minority- and women-owned firms, emerging small businesses and nonprofit developers received at-cost training in preparation for the LEED Accredited Professional exam in order to boost their green credentials and participate in the region's green economy.*

*Creating a more sustainable future is an exciting challenge. Portland has made great strides toward this goal, and our work continues. This report describes PDC's latest steps in helping to make the City of Portland a leader in sustainability—a vibrant, healthy, green and equitable city.*

Bruce A. Warner  
Executive Director  
Portland Development Commission





## SUSTAINABILITY DEFINED

*"Today, we understand that respect for the environment is one of the main pillars of our fight against poverty."*

*Kofi Annan, 2001 Nobel Peace Prize Recipient*

**What is sustainability?** In simple terms, it is a state that can be maintained indefinitely. It means creating a just society that uses a responsible economic model to access earth's natural resources in ways that can be perpetuated indefinitely into the future. Global sustainability hinges on the health and balance of three primary systems: environment, society, and economy.

These three primary systems are dubbed sustainability's "three pillars." They are interrelated and self supporting. A sustainable environment involves healthy ecosystems, biodiversity, natural resource conservation and healthy air, water and land. Ecological viability is the foundation for sustainability and the lifeblood of the two other pillars.

### *Triple Bottom Line:*

*...the financial, social, and environmental effects of an [organization's] policies and actions that determine its viability as a sustainable organization.*

*Business dictionary.com*

For a society to be sustainable it must be cohesive and working to achieve common goals in which people enjoy a fair distribution of goods, resources, services and opportunities.

A sustainable economy requires responsible growth that uses a model such as *natural capitalism* to promote full cost accounting, in which financial costs are assigned to the use, maintenance, degradation and depletion of natural resources and ecosystems, to thereby cultivate healthy industries and jobs.

In contrast to a bottom-line approach to investment and financial decisions, organizations seek-



*Portland Farmers Market, a model of sustainability's "three pillars."*

ing to create a sustainable economy follow the triple-bottom-line philosophy in which an organization considers each of sustainability's three pillars in its decision making. The triple bottom-line requires strong public/private partnerships and visionary planning. The Portland Development Commission is uniquely positioned to spur triple bottom-line development that is sustainable for Portlanders, our resources and our economy.

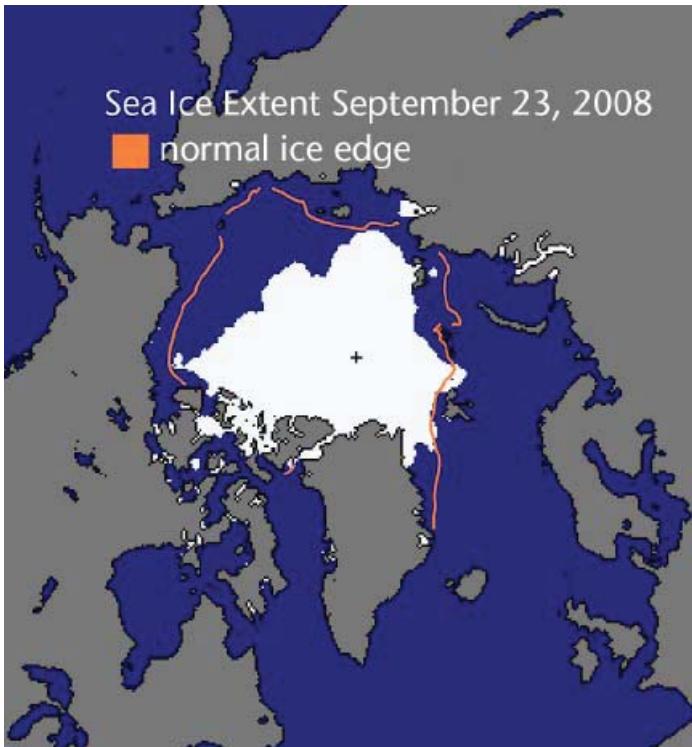
*"We see sustainability as not just the triple bottom line opportunity, but the "triple top line" for revenue-driven business growth."*

*Lynelle Cameron  
Director of Sustainability  
Autodesk, Lake Oswego  
October 14, 2008*

## PDC'S SUSTAINABILITY MANDATE

*"Sustainable development is central to Portland's future economic growth. Expanding our green economy will require thinking about growth in a way that is environmentally, socially and economically sustainable. Embracing this approach will guide our city toward long-term economic success."*

*Portland Mayor Sam Adams*



Recently the National Snow and Ice Data Center reported on new satellite images that reveal – for the first time in 125,000 years – that the North Pole can be circumnavigated due to the loss of ice. Climate models predicted that this event would not occur until 2070.  
Source: *The Independent*, 2008.

### 2007-2008 Sustainability Plan Goals

1. Update, promote and facilitate implementation of PDC's Green Building Policy
2. Grow sustainability expertise at PDC and within development and business communities
3. Promote sustainable economic development
4. Reduce energy use and climate impacts
5. Purchase sustainably and reduce natural resource depletion
6. Enhance PDC's sustainability culture through communication, outreach, education and training

For nearly a decade, sustainability has been a goal that the Portland Development Commission has sought to weave through its projects. PDC's duties, as outlined in the City of Portland Charter, specifically encompass sustainability. "The commission shall advance social equity in carrying out all of its duties and shall involve the constituencies of the city to create, maintain and promote a diverse, sustainable community in which economic prosperity, quality housing and employment opportunities are made available to all residents."

In December 2006, the Portland City Council reaffirmed its commitment, passing a resolution to require all bureaus and offices to develop sustainability plans and report annually on their progress thereafter. Further, the City of Portland – and by extension, PDC – is a member of International Council for Local Environmental Initiatives (ICLEI) Local Governments for Sustainability, an international association working to advance sustainable development and climate protection.

The strongest mandate, however, comes from nature itself. Natural resources are the foundation upon which all economies depend, but these life support systems are in decline. The 2005 Millennium Ecosystem Assessment reported that some 60 percent of the planet's ecosystems are being degraded by human activities. We are losing our forests, fisheries, coral reefs, top soil, water, biodiversity and climatic stability. Yet, we are still capable of creating a healthy and stable future. Governments play an important role in managing development without harming society, the environment or the economy.

The Portland Development Commission was founded in 1958, and the change in our approach to urban development during the past 50 years has been dramatic. Similar to the norms

## OREGON AND PORTLAND HISTORIC SUSTAINABILITY LANDMARKS

- 1967: Oregon passes Beach Bill, to assure public beach access
- 1970: Oregon passes land use bill, to manage sprawl, protect farmland
- 1971: Oregon passes the Bottle Bill, first recycling law in the nation
- 1979: Portland develops first city Energy Policy
- 1986: Portland's first mass transit light-rail line completed
- 1993: Portland develops first Climate Plan
- 1994: City Sustainability Principles declared
- 1996: Portland requires business to recycle 50 percent of their waste
- 2000: Office of Sustainable Development created
- 2000: First City/PDC Green Building Policy
- 2000: Portland's Green Investment Fund created
- 2001: Portland implements Global Warming Action Plan
- 2001: Portland's first modern streetcar transit line opens
- 2005: Updated City Green Building Policy released
- 2006: Since 2001, energy use has fallen by 15 percent, saving the city \$18 million
- 2007: Portland's Peak Oil Resolution: commitment to reduce fossil fuel use 50 percent by 2030
- 2008/09: City and PDC initiate development of higher Green Building Policy standards

of society and science, urban development has advanced and matured. Originally, like other cities, Portland relied heavily on eminent domain to gain control of "blighted" areas of the city, and then razed entire neighborhoods, replacing them with skyscrapers and new commercial districts. Fifty years later, in a world of emerging energy, climate, water and food crises, and a rising social consciousness, the goals of urban development are more humane and are far broader.



*Bioswales collect and filter hardscape runoff.*

Today, PDC supports a more sustainable city by investing in high-performance buildings and green infrastructure, facilitating triple bottom line business activity that creates jobs, expanding economic opportunities, funds green affordable housing, and constantly seeks to improve the sustainability of internal operations.

This report highlights examples of improvements that PDC programs have made in the lives of Portland citizens and businesses, and its contributions to a world where the people, prosperity and planet can all flourish. It also documents the agency's achievements in meeting its 2007-08 Sustainability Plan commitments. In that Plan, PDC committed to work toward six goals and 17 objectives, and identified 63 actions to advance toward those objectives. The examples in this report illustrate the breadth of the agency's accomplishments and its commitment to a more sustainable city, region and world.



## SUMMARY OF 2007-2008 SUSTAINABILITY PLAN ACCOMPLISHMENTS

For additional details on this table see Appendix I

Table 1

Goals	Status	Objectives	# of Action Items						
			Total	Complete	On track	Incomplete	Withdrawn		
1. Update, Promote and Facilitate the Implementation of PDC's Green Building Policy and Sustainability Practices	67% complete	Develop new Green Building Policy that places PDC among the nation's leading sustainable development agencies	3	3	0	0	0		
		Clarify PDC's 2005 Green Building Policy	3	1	2	0	0		
		Institutionalize the Green Building Policy throughout PDC's business procedures	2	1	1	0	0		
	33% on track	Create a Compliance Assistance Program to assist developers	5	3	2	0	0		
		Develop incentives to facilitate and advance PDC's Green Building Policy	5	4	1	0	0		
		<b>Totals</b>	<b>18</b>	<b>12</b>	<b>6</b>	<b>0</b>	<b>0</b>		
2. Grow Sustainability Expertise at PDC and in the Development and Business Communities	100% complete	Provide PDC Staff with training that equip them to become sustainability professionals	3	3	0	0	0		
		Provide training opportunities for M/W/ESB and others in the business and development communities	4	4	0	0	0		
		<b>Totals</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>		
3. Promote Sustainable Economic Development	100% complete	Target marketing to sustainable businesses for retention, expansion and recruitment	2	2	0	0	0		
4. Reduce Energy Use and Climate Impacts	92% complete	Develop an Energy Policy and make PDC's building energy use carbon neutral by 2010	6	5	1	0	0		
		Increase staff use of transit and in reduce the staff's climate impacts	2	1	0	0	1		
	8% on track	Purchase energy efficient office products	4	4	0	0	0		
		<b>Totals</b>	<b>13*</b>	<b>12</b>	<b>1</b>	<b>0</b>	<b>1</b>		
5. Purchase Sustainably and Reduce Natural Resource Depletion	81% complete	Develop a Sustainable Purchasing Policy	5	4	0	0	1		
		Use purchasing contracts to reduce staff exposure to toxic substances	3	2	1	0	0		
		Expand and further institutionalize recycling at PDC	3	2	1	0	0		
	19% on track	Develop a Paper Policy to increasingly reduce, reuse and recycle paper	6	5	1	0	0		
		<b>Totals</b>	<b>16*</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>1</b>		
6. Enhance PDC's Sustainability Culture through Education and Training	78% complete	Infuse sustainability into PDC's culture and operations through education	6	3	3	0	0		
	22% on track	Equip staff with tools to implement new and existing sustainability policies	3	2	1	0	0		
		<b>Totals</b>	<b>9</b>	<b>5</b>	<b>4</b>	<b>0</b>	<b>0</b>		
<b>Percent Completed</b>		<b>78%</b>	<b>Grand Totals</b>		<b>63</b>	<b>49</b>	<b>14</b>	<b>0</b>	<b>-2</b>
<b>Percent On Track</b>		<b>22%</b>	<b>Percentages</b>		<b>100%</b>	<b>78%</b>	<b>22%</b>	<b>0</b>	<b>3%</b>

\* Totals do not include actions that were withdrawn.

## SUSTAINABLE URBAN DEVELOPMENT

*high performance buildings ~ historic preservation ~ green infrastructure ~ deconstruction*

Sustainable urban development is a critical goal for Portland, especially as the population continues to increase. Healthy buildings, abundant transit options and amenities such as neighborhood parks and open spaces are essential to accommodate sustainable growth and maintain the city's quality of life. This section reports on how these goals are guiding PDC's work.

PDC's 2007-2008 Sustainability Plan contains 18 actions under **Goal 1: "Update, Promote, and Facilitate the Implementation of PDC's Green Building Policy."** The actions include adding third-party verification to PDC's Green Affordable Housing Policy and explicitly advancing social equity. Since 2007, PDC has been collaborating with the Office of Sustainable Development to develop a new city-wide High Performance Green Building Policy that includes these features. Twelve of the 18 actions under Goal 1 have been completed and six are on track for timely completion. See Appendix I for a detailed list of PDC's 2007-2008 Plan Accomplishments.

### HIGH PERFORMANCE GREEN BUILDINGS

*Design directly influences our lives through economic, environmental, and social forces.*

*As stewards of our resources, public officials must be keenly aware of how building processes contribute to or detract from the synergy among these three critical and interrelated sectors.*

*American Institute of Architects*

The U.S. building stock is predicted to double in the next 30 years, creating an enormous opportunity in Portland and across the country for using innovative and sustainable design to significantly reduce the negative impacts buildings can have on the environment and people.

Greenhouse gas emissions from the building sector in the United States have been increasing nearly two percent per year since 1990. The carbon emissions from residential and commercial buildings are expected to continue increasing by 1.4 percent annually through 2025. These emis-

### U.S. BUILDINGS ARE RESPONSIBLE FOR:

- 70% of electricity consumption
- 39% of energy use
- 48% of all carbon dioxide emissions
- 40% of raw materials use
- 30% of waste output (136 million tons annually)
- 12% of potable water consumption

*U.S. Department of Energy  
U.S. Green Building Council*

### BENEFITS OF GREEN BUILDING

#### Environmental benefits:

- Enhance and protect ecosystems/biodiversity
- Improve air and water quality
- Reduce solid waste
- Conserve natural resources
- Reduce carbon emissions

#### Economic benefits:

- Reduce operating costs
- Enhance asset value and profits
- Improve employee productivity/satisfaction
- Optimize life-cycle economic performance

#### Health and community benefits:

- Improve air, thermal, acoustic environments
- Enhance occupant comfort and health



sions come principally from the generation and transmission of the electricity and natural gas used in buildings.

Portland and Multnomah County emissions have actually fallen 12.5 percent since 1993 on a per capita basis. By 2006, the energy cost savings were more than \$18 million, demonstrating that energy efficiency investments not only quickly pay for themselves by lowering utility bills but also measurably reduce carbon emissions on a large scale, once widely adopted.

PDC's 2005 *Green Building Policy Guidelines* support these goals by requiring developers who



receive PDC funding to integrate energy efficiency and other sustainable practices into construction projects, using the U.S. Green Building Council's green building rating system, Leadership in Energy and Environmental Design (LEED).

Increasingly, commercial and residential projects receiving PDC funding and technical assistance are applying a range of sustainability techniques that go well beyond policy requirements. The Portland Development Commission has helped fund several exceptionally green buildings during the past year.

Nine of 14 completed development projects receiving financial assistance from PDC met or surpassed our Green Building Policy and were certified as Leadership in Energy and Environmental Design (LEED) Silver or Gold, and five projects are awaiting their official LEED certification.

**Eliot Tower – A Portland First in LEED for Neighborhood Design**

When PDC sold the block at SW 10th and Jefferson to John Carroll of Carroll Investments, the agency required the project to achieve LEED certification. Carroll made it happen – but not in the traditional way. Eliot Tower, the subsequent development, received a LEED for Neighborhood



*The Eliot Tower is on the Portland Streetcar line.*

“We have always thought that building in an urban center is the thing we wanted to do,” says Carroll, and the Eliot does just that. Its residents have easy access to schools, parks, farmers markets, commercial areas, and numerous public transportation options. In fact, the residents of the Eliot have had a restorative effect on the neighborhood around it, making it more livable and lively than it was before. The influx of residents activated the street, even playing a part in convincing the art museum to open its “back door” onto 10th Avenue, right across from the Eliot’s front door. The building increases the value of the city’s infrastructure investments, creating and serving the community.

Summary of PDC Green Building Project Certifications Table 2				
Certification Type	2003 - 2007		2007 - 2008	
	Certified	Annual Rate	Certified	Annual Rate
LEED	7	1.75	9	9
Earth Advantage	11	2.75	1	1
G/Rated	7	1.75	6	6
<b>Totals</b>	<b>25</b>	<b>6.25</b>	<b>16</b>	<b>16</b>

Development Silver certification in January 2008, the first LEED-ND certification in Oregon – and one of the first in the nation. Carroll says, “LEED-ND is absolutely inspirational.” It is a system that goes beyond green construction to emphasize a project’s location, density, and access to transit and other important services. The Eliot – already intending to be a green building – used the LEED-ND system to become a vertical, high-density neighborhood.

## HISTORIC PRESERVATION AND HIGH PERFORMANCE

*“Up to now, our approach to life on this planet has been based on the assumption that ‘there’s plenty more where that came from.’ With our environment in crisis, we have to face the fact that there may not be “plenty more” of anything... The retention and reuse of older buildings is an effective tool for the responsible, sustainable stewardship of our environmental resources.”*

*Richard Moe, President  
National Trust for Historic Preservation*

PDC provides funding for new building construction but also supports the reuse of older buildings whenever feasible to capture their embodied energy – the energy it took to extract, manufacture, assemble, transport and construct the original building.



*The Meier & Frank Building; built in 1909, reopened in 2008 after a major renovation.*



Historic building preservation is among the most sustainable trends in the nation. The following highlights on the role of historic preservation and building reuse in conserving natural resources are from an address by Richard Moe at Portland's Gerding Theater at the Armory, February 2008.

- If 40 percent of the materials of a demolished building are recycled, it takes about 65 years for the average new green, energy-efficient office building to recover the energy lost in the existing building.
- When you see a construction crane on the Portland skyline, remember that constructing a 50,000 square foot commercial building releases the same amount of carbon into the atmosphere as driving a car 2.8 million miles.

It is often said that the “greenest building is the one that’s already built.”

### Mercy Corps Seeks LEED Platinum for Historic Building Renovation

Working with partners like Mercy Corps makes advancement toward PDC's sustainability goals easy. The organization will soon move into the historic Skidmore Fountain Building in Old Town, with a renovation and addition designed to earn LEED Platinum certification. The Mercy Corps World Headquarters will host a Center for Learning and Action – a place for the community to interact with Mercy Corps staff, visitors, and decision-makers, to educate themselves about global hunger and poverty, and identify individual opportunities for action.

*The “green building” movement focuses on the annual energy use of a building. But energy embodied in the construction of a building is 15 to 30 times the annual energy use. Historic preservation is, in and of itself, sustainable development.*

*Donovan Rypkema, Principal  
PlaceEconomics*



*The Skidmore Fountain Building for Mercy Corps' new headquarters is undergoing a complete green renovation.*



## PARKS AND GREEN INFRASTRUCTURE

*Study nature, love nature, stay close to nature. It will never fail you.*

*Frank Lloyd Wright*

Urban green spaces create healthy sanctuaries for individuals and the community. Clean streets lined with trees contribute to a neighborhood's sense of safety and well being. Green infrastructure such as bioswales and rain gardens beautify streets while naturally managing stormwater, improving water quality, reducing flooding and contributing to a healthy watershed. These amenities enrich neighborhoods and contribute to a more sustainable community.

Natural surroundings have other benefits. Science has confirmed what common sense long suggested: access to nature is good medicine for people of all ages and the young are believed to receive the greatest benefits.

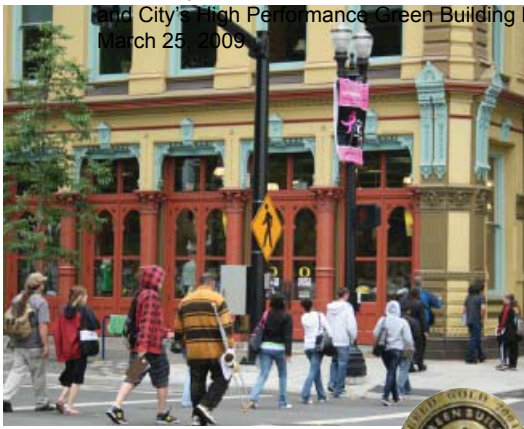
According to Peter H. Kahn in, *The Human Relationship with Nature*, "The emerging body of evidence indicates that direct exposure to nature is essential for physical and emotional health. New studies suggest that exposure to nature may reduce the symptoms of Attention Deficit Hyperactivity Disorder, and improve all children's cognitive abilities and resistance to negative stresses and depression." The benefits of parks and green space to human health and urban livability cannot be overstated.

*In 2003, the average American devoted 327 more hours to electronic pursuits than he or she did in 1987.*

*Between 1987 and 2003, visits to national parks dropped 25 percent.*

*Richard Louv  
Last Child in the Woods*

In terms of access to nature, many children are growing up far differently than their parents did. Building tree forts, playing in the woods and making trips to the local swimming hole are becoming artifacts of a different age. Including nature in the urban planning equation helps address what some researchers are calling a growing "nature deficit."



*The White Stag renovation has increased beauty and energy in Old Town/Chinatown.*



### White Stag Block – Green Renovation of Three Buildings

The White Stag Block in Old Town, a three-building complex, is easily identifiable by the iconic 'Made in Oregon' sign on its rooftop.

Completed in 2008, the building renovation will long be appreciated for its

beautifully restored historic architecture and green building features, which earned it a LEED Gold certification for Core and Shell construction. The Venerable Group, the developer, and the University of Oregon are now anchor tenants in the neighborhood – bringing jobs and spurring further revitalization in Portland's Old Town/Chinatown.

The reuse of these three buildings ensures that their embodied energy is not wasted. The block is conveniently



*Art DeMuro (right) presents a plaque to Bruce Warner at the opening ceremony of the White Stag Blocks, March 2008.*

located close to public transportation and provides support for car-pooling, car-sharing and bicycle commuting.

Energy-saving heating

equipment, energy-efficient lighting, and daylighting all help to reduce the buildings' energy consumption.

According to Art DeMuro, owner, Venerable Properties Group, "My experience with the LEED rating system was limited before I started working on the White Stag. I appreciated the discipline it brought to the project; I learned a lot during this process and would gladly do it again."

#### WHITE STAG'S GREEN FEATURES INCLUDE:

- 98 percent of the materials were salvaged, reused or recycled
- 10,000 gallon stormwater retention tank holds rainwater for flushing toilets
- 40 percent reduction in water use
- Locally purchased materials used
- Occupancy sensor shut off lights, heating and cooling systems in unoccupied spaces
- Recycled-content carpet and wheatboard cabinets
- Reuse of heavy timbers and bricks within the building
- New energy-efficient windows maintain historic character

## *Nature's Wisdom*



*Let Nature be your teacher.*

*Wordsworth*

*Man's heart, away from nature,  
becomes hard.*

*Luther Standing Bear*

*The voice of nature is  
always encouraging.*

*Thoreau*

*Those who contemplate the beauty of the  
earth find reserves of strength that will  
endure as long as life lasts.*

*Rachel Carson*

*What is the extinction of a condor to a  
child who has never seen a wren?*

*Robert M. Pyle*

*Naturalist*

PDC, the City of Portland and local developers are working to counter this trend by increasing the amount of tree canopy in the city, planning new neighborhood parks, daylighting creeks and integrating natural open spaces into urban living.

Green streets soften the landscape with trees, native plants, and shrubs. Bioswales and rain gardens divert rainwater from streets, allowing stormwater to naturally percolate through the soil, removing contaminants and recharging aquifers.

Transit lines, pedestrian trails and bikeways are also a part of the city's expanding green infrastructure, creating transportation alternatives to the automobile, and reducing congestion, pollution and carbon emissions. Portlanders already drive less than the national average, which translates into monetary benefits. Economist Joe Cortright reports that, "The \$1.1 billion Portlanders don't spend on car travel translates into \$800 million that is not leaving the local region. Because this money gets re-spent in other sectors of the economy, it stimulates local businesses rather than rewarding Exxon or Toyota." Last year, PDC invested \$12,821,608 to improve Portland's transportation needs, including green streets. Working with the Bureau of Environmental Services (BES) and the Office of Transportation, PDC is helping to transform our city streets.

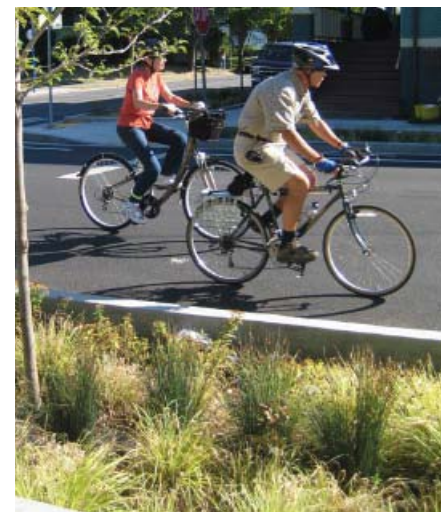
### **Lents Green Streets**

In partnership with BES, PDC helped develop the green street along Southeast 92nd Avenue in the Lents Town Center Urban Renewal Area. PDC invested \$717,000 in this and other street, park and open space projects in Lents, and sponsored a neighborhood charette where participants shared their ideas for other street improvements.

During the 2007/08 Fiscal Year, PDC funded:

- Streets/Transportation - \$12,821,608
- Parks/Open Space - \$7,578,307
- Public Facilities - \$498,447

A total investment of \$21 million in public infrastructure, green streets and parks.



*Bioswale at SE 12th Avenue and Clay Street – a green street*



## DECONSTRUCTION

Deconstructing and reusing building components from outdated structures is one of the best



Two dozen massive 40-foot long, old growth Douglas Fir beams salvaged by Konell Construction from a warehouse on Martin Luther King, Jr. Blvd, await transfer to be re-milled for reuse.

ways to conserve natural resources. PDC's goal for residential redevelopment is to reuse and recycle 95 percent of all demolition debris. The goal for commercial properties is to salvage 85 percent of joists and rafters, 50 percent of wall studs and 90 percent of beams and columns. By requiring extensive salvage on its properties

PDC is increasing awareness of this opportunity among contractors and is supporting a growing local sustainable industry.

Der Lovett, of Lovett Deconstruction, states succinctly: "The demand for good deconstruction in Portland is growing. Both homeowners and general contractors are starting to understand that it makes sense to deconstruct buildings and reuse the materials. It saves resources and keeps high quality materials out of the landfill."

## North Albina Triangle

At the North Albina Triangle Project shown below, one-hundred thirty 12-inch squares cut from a large concrete slab were reused on the project to line stormwater bioswale beds. Another 100 squares were reused on a similar bioswale project, the Headwaters at Tryon Creek.



Dedication ceremony for Albina Triangle. Traffic triangle before, shown below.



PDC Demolition 2006/2007 (in tons) Table 3				
Project	Salvage	Recycling	Net Waste to Landfill	Totals
Demolition of 1936 Wirf's Warehouse and Marco Machinery Building for the Vanport Development	232	1,473	87	1,792
<b>Percent of total debris</b>	<b>13</b>	<b>82</b>	<b>5</b>	<b>100%</b>

### PDC Construction Services managed the following environmental mitigation projects in 2007/2008:

- 8 Hazardous Building Surveys
- 16 Phase I Environmental Site Assessments
- 7 Phase II Environmental Site Assessments
- 9 Construction Contracts
- 8 Environmental Design and Engineering Projects
- 8 Engineering Technical Assistance projects



## SUSTAINABILITY & COMMUNITY EQUITY

*economic prosperity ~ quality housing ~ employment opportunities for all*

Community equity is a key ingredient to a vibrant, thriving, livable city. In Portland, historically underserved groups continue to face limitations and barriers which can block fundamental opportunities such as getting a job and owning a home. PDC advocates for diversity through minority homeownership, skills training, facilitating business opportunities, and offering technical and financial assistance to help people pursue their goals, regardless of gender, race or nationality.

Livable cities provide amenities and opportunities that are available to all. Living wages enable families to live comfortably, earn enough income to improve their quality of life and contribute to a healthy community. Easily accessed transit routes provide the mobility for going to work, shopping, and community events without adding to the emission of carbon and toxic chemicals from single-occupancy vehicles. Healthy, affordable housing for homeless, low-income and workforce families supports the entire community with a more stable and engaged citizenry.

PDC's 2007-2008 Sustainability Plan specified eight separate actions to promote community equity, all of which have been completed or are on track for completion in 2009. One PDC priority action was to convene a Green and Healthy Affordable Housing Coalition to draft a new policy with recommendations on improving the health and sustainability of affordable housing developments. As a result of the coalition's work, health and social equity objectives are now explicitly incorporated into the draft policy. Another key action that was fulfilled last year was arranging sustainability training for minority, women and emerging small business (M/W/ESB) members of the development community and nonprofit affordable housing developers. (See Appendix I for additional details.)

### CREATING EMPLOYMENT OPPORTUNITIES

Nathaniel Hartley is highly skilled in the dying art of lath and plaster, yet it was only recently that his small business gained a foothold in Portland, as a result of PDC's Business and Equity Program. Originally from Portland, Hartley ran into barriers working in his field so he moved to California in the 1980s to look for new opportunities. By 2006, though

*"My dream was to come back home, start a plastering business and train young people to learn the trade. PDC offered me the opportunity of a lifetime. It was my dream come true."*

*Nathaniel Hartley*

Nathaniel had established a very successful business, the Business Equity Program lured him back to his home town. Through PDC's program, Performance Contracting, Inc., a drywall contractor working for Hoffman Construction, agreed to an unusual contracting arrangement that allowed a small business like Hartley's to be hired to work on a large apartment project in the South Waterfront area. While the program allowed Hartley to begin his Portland business, the quality of his work and his dedication earned him the contracts that followed. Even with 27 years of experience Mr. Hartley states, "Without PDC's program, I wouldn't be working here today."



*Nathaniel Hartley displays the high quality, smooth plaster he skillfully applied to a cement pillar in the Ardea Apartments in the South Waterfront.*



Through outreach and communication with subcontractors and employers, PDC supports a more equitable contracting environment. In the Business Equity Program, large project developers make a good faith effort to hire subcontractors certified as minority-owned,

women-owned, or emerging small businesses for 20 percent of their subcontractor needs. PDC also promotes an apprenticeship program in the construction trades for minority and women contractors, further establishing a connection between cultural communities, developers and contractors.

*“PDC has become more active in working directly with people of color in our community, which is building and strengthening our relationships with local businesses.”*

*Stephen Green, PDC Business Equity Coordinator*

**GREEN, HEALTHY AFFORDABLE HOUSING**

During the 2006/07 fiscal year, PDC funded 66 percent of the costs of developing 626 low-income rental units. Most of these units complied with PDC's Green Affordable Building Guidelines.

*Sustainability has three core components ~ economy, social equity and the environment. Affordable housing directly addresses two of those aspects: economic stability and social equity. Integrating green building enables developers to address the third environmental component.*

*Blueprint for Greening Affordable Housing*

stood today. Green building addresses social equity in at least two ways: it lowers operating costs and improves the health of indoor environments. Green construction also uses fewer natural resources, reduces pollution and waste, and minimizes impacts on the local, regional and global environment.

Greening affordable housing for low-income and workforce families often provides tenants with better access to natural environments, mass transit, and community services. PDC directs an average of 30 percent of its tax increment financing to provide affordable housing, and requires that developers meet basic green construction standards.

One of the most important health benefits of green construction techniques is the improvement of indoor air quality, which reduces the incidence of respiratory diseases, especially among the young and elderly. The safer building materials used in certified green buildings, as well as daylighting and fresh air ventilation create healthier living spaces. The Center for Disease Control and Prevention

Fiscal Year 2006/2007		Table 4		
Units	Total Units & Buyers	% Total Units	Total PDC \$	% Total PDC \$
Rental rehab. preservation	332	16%	6,987,839	22%
New low-income rental units	626	31%	21,011,617	66%
New market-rate rental units	7	0%	192,555	1%
New ownership units	621	30%	0	0%
Homes repaired	144	7%	1,223,578	4%
First-time homebuyers	308	7%	2,364,656	7%
<b>Total Units &amp; Homebuyers 2,038</b>		<b>Total Dollars \$31,780,245</b>		

Green construction is going mainstream—even among affordable housing developers who operate on a shoestring—primarily because the relative costs of building green have dropped and an increasing number of building professionals now have experience in green construction. The benefits of green building are more widely under-

reports that one of its top eight public health concerns is inadequate ventilation in buildings. An increasing number of studies show that fresh air ventilation in housing units re-



*Ecoroof on the Morrison Apartments*

duces the incidence of respiratory diseases, and trips to a hospital or emergency rooms.



### The Morrison Apartments

The Morrison provides 140 housing units for tenants who earn 60 percent or less than the median family income (MFI) – the 2008 MFI for a family of four is \$67,500 as set by the federal government. Tenants in this downtown location, 1959 SW Morrison Street, enjoy the mixed-income, mixed-use and transit-oriented design that sustainable urban planners promote. Developed along a vibrant cross-section of Portland's urban culture, the Morrison is a five-story complex close to PGE Park and MAX light rail. Tenants pay no more than 30 percent of their income for rent.

The Morrison and its market-rate sister building, the Civic, embody the "20-minute neighborhood" concept in which basic services and amenities are within a 20 minute walking or transit radius. A successful public/private partnership between the Housing Authority of Portland and Gerding/Edlen Development created the two LEED Gold certified buildings.

Bioswales in the plaza and a 20,000 square foot eco-roof reduce stormwater runoff by 35 percent

### Watershed at Hillsdale – a Gateway to the Town Center

The Watershed's vertical glass and steel tower bearing a HILLSDALE sign marks a gateway to a



*The Watershed at Hillsdale*

### MORRISON APARTMENTS SUSTAINABLE FEATURES INCLUDE:

- The Morrison is 18% more energy efficient than Oregon code requirements
- 75% of construction waste materials recycled
- Reuse of rainwater for irrigation
- 30% reduction in water use
- Landscaped pedestrian street
- Landscaped with native and drought-tolerant plants

vibrant town center. The

Watershed at Hillsdale is a mixed use development with 51 apartments affordable for seniors who earn 60 percent or less than the median family income. (Eight units are set aside for formerly homeless veterans who need special supportive care.) Completed in February 2008, this mixed-use, mixed-income, transit oriented development is in the heart of the Hillsdale Town Center. "It's around everything you need," says Vonnie Hiatt, the resident manager, adding that residents appreciate how well they are connected to the surrounding community. The facility provides a community room gathering place that's available for residents and public use. Hiatt adds, "people just love it here."

The Watershed at Hillsdale is built on a triangular 3,000 square foot lot. It is now a reclaimed brownfield that sat unused for 30 years. The Community Partners for Affordable Housing, Watershed's developer, won the Environmental Protection Agency's Cleanup Grant for the

### WATERSHED'S GREEN FEATURES INCLUDE:

- Close proximity to transit and services
- High-density with 85 units per acre
- 30% more energy efficient than Oregon code
- 95% of construction waste recycled
- Durable building envelope materials
- Stormwater is retained on site and naturally pre-treated
- Heat recovery ventilator that reduces the energy costs associated with fresh air ventilation
- Local products accessed – wood, windows, cabinets and doors
- Daylighting to improve residents' health
- High efficiency lighting, appliances, central boiler and furnace





Vonnie Hiatt, right, is the Watershed's manager in residence.

project – the first nonprofit to do so in Oregon. The project is on track to be certified LEED NC Silver.

The Hillsdale Neighborhood was involved at the earliest stages of the project and is a strong supporter of the development. Neighborhood and business leaders participated

in naming the building, helped raise funds for lighting the sign and five-story tower, and installed a public water fountain. PDC was one of many partners who funded this project, contributing \$866,732 to its development.

### HOME OWNERSHIP

Through technical assistance, grants and loans, PDC assisted 45 homebuyers during the FY 2007-2008; 27 percent were minority homebuyers.



Guadalupe Avila holds up the key to her new front door.

Homeownership has long been one of the primary routes to wealth creation in the United States, and Guadalupe Avila's experience demonstrates the fulfillment of PDC's

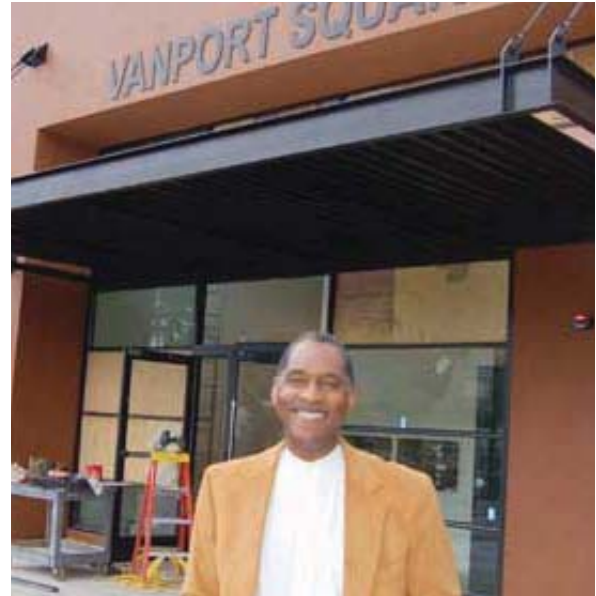
homeownership equity goals. "My dream was to own my own home and provide a safe place for my kids," says Avila, a single mother of three. After spending seven years in public housing, Avila received an Oregon Bond loan through PDC with a low interest rate and affordable monthly payments. This support, along with other non-profit homeownership programs, allowed Avila to buy the home she had rented for the previous seven years.

### GREENING SMALL BUSINESSES

#### Vanport Square

Vanport Square is an example of the integration of economic, social and environmental goals. This multi-phase commercial project is an ambi-

tious undertaking to create a new marketplace and revitalize N.E. Martin Luther King Jr. Blvd. Designed and constructed according to high sus-



Developer Ray Leary standing in front of Vanport Square just before the official opening.

tainability standards, Vanport Square is in line for a LEED for Core and Shell Gold certification. "Core and Shell" covers base building elements such as structure, building envelope or exterior, and heating, ventilation and air conditioning systems (HVAC). The Vanport project provides diverse ethnic, racial and women-owned businesses the chance to build equity and create wealth, fulfilling the vision of the developers, Ray Leary and Jeana Woolley, and PDC.

Leary and Woolley are successful developers who pioneered the use of commercial condominiums in our region, offering incoming businesses the opportunity to purchase rather than lease commercial space, which allows them to build equity.

PDC provided \$6.8 million in loans and helped arrange \$2 million in tax credits to help finance Vanport, and also assisted the incoming commercial condominium owners with \$3 million in loans for their business space build-outs. The condo owners represent the richness of Portland's diversity: women, African American, Korean American, Vietnamese American, and Cuban American business owners. Their businesses include restaurants, beauty supply, clothing stores, insurance services and graphic design.

*"By developing Vanport Square, Ray and I wanted to create a sustainable community asset that was responsive to the N.E. community's desire for quality green development, small business wealth creation, job creation, commercial revitalization and celebration of the community's cultural diversity.*

*We are pleased with the results."*

*Jeana Woolley, Marco Properties LLC*

#### VANPORT'S GREEN FEATURES INCLUDE:

- 100% green power used for building shell
- 100% of new wood used in construction was certified by the Forest Stewardship Council
- 100% of adhesives, sealants, paint, carpet are low-VOC (toxics)
- 98% of interior spaces have access to daylight and views
- 97% of building materials were diverted from the landfill
- 80% reduction in water use for landscape maintenance, using native plants and drip irrigation
- 76% of the existing building was reused
- Built on redeveloped brownfield site
- Low flow water faucets and toilets reduce water use by 20%
- 20% of construction materials are locally harvested or manufactured
- Designated parking for carpool and hybrid vehicles

#### SUPPORTING COMMUNITY EVENTS

PDC sponsors scores of community and nonprofit events every year. The agency is a major sponsor of the annual Lents Neighborhood Resource Fair where prospective homeowners learn about PDC's assistance and funding programs. Sarah Gourde, PDC's former Lead Abatement Coordinator, attended the fair to screen children's toys and other items for the presence of lead, helping combat the damage of this toxic heavy metal to children's health. PDC staff members were available to answer people's questions on a variety of topics.

#### Lents Community Design Event

The Lents Town Center Urban Renewal Area and Metro Councilor Robert Liberty co-hosted the Lents Community Design Event on Saturday, April 30, 2008 at Lent Elementary School. Approximately 25 community members and 12 volunteer facilitators, artists, archi-



tects and students participated in an all-day event conceptualizing design ideas for potential use under the I-205 bridge between SE Foster and SE Woodstock, adjacent to the heart of the Lents Town Center. The ideas born from this event included:

- Incorporating wind and solar energy to power lighting and water features;
- Using rain filtration systems to maximize and beautify an open space that creates a gateway joining the residential and business communities.

High energy and a spirit of collaboration were evident and all enjoyed the camaraderie of working on this challenging project together.



*For the fourth year in a row, PDC hosted the Lents Resource Fair, bringing together representatives from city bureaus, elected officials, PDC and local non-profit organizations to celebrate the community and provide useful information on resources available to people who live, work and do business in Lents.*



## SUSTAINABILITY TRAINING FOR NONPROFITS, MINORITY-OWNED AND SMALL BUSINESSES

The U.S. Green Building Council's LEED rating system has become the de facto green building standard for commercial construction in the U.S. and around the world.



Understanding the LEED building certification process can help qualify contractors for working on green construction projects. To assist more contractors to qualify for PDC – and

other green building – development, PDC arranged for Brightworks, a local green building consulting firm, to facilitate two “at cost” training sessions to prepare attendees for the LEED Accredited Professional exam. Though the commercial cost of the training is typically \$350 to \$400, PDC offered it for \$50.

PDC reached out to minority, women and small business firms and nonprofit developers to take the course and more than 100 firms and city employees attended the sessions, saving at least \$300 each on the training. The classes received accolades from participants, including one who wrote on the evaluation form, “Thank you. Your depth and coverage in a single day were impressive!”

## SUSTAINABLE ECONOMIC DEVELOPMENT

*business activity that creates jobs, income and wealth ~*

*“Natural Capitalism is about making small, critical choices that can tip economic and social factors in positive ways.”*

*Paul Hawken, Natural Capitalism*

Businesses to which PDC provides assistance are encouraged to reduce their impact on natural capital: the natural resources and ecosystem services upon which economies are built. In contrast to the more traditional business approach that accounts only for the flow of human, financial and manufactured capital, more sustainable businesses seek to account for the true costs of doing business, including the carbon emissions, resource depletion, air, soil and water pollution, and social impacts that the old business model externalizes. This new bottom line often triggers greater innovation and cultivates new industries and jobs that are responding to the world's finite resources. Natural Capitalism is one emerg-

*The economy is a wholly owned subsidiary of the environment, not the reverse.*

*Herman Daly, World Bank*

ing model for sustainable economic development.

The Portland Development Commission targets sustainable industries for retention, expansion or relocation to the Portland area. Sustainable

industries include renewable energy companies, green building service and product providers, businesses that clean up contaminated environments and those engaged in sustainable agriculture and landscaping. PDC provides technical assistance that can improve business operational sustainability and efficiency, often with a financial pay back. PDC provides incentives for quality job creation, especially in target industries, rewarding companies that pay higher wages and invest in the city. Innovative new models of business creation and operations also draw PDC investment.

The 2007-08 Sustainability Plan committed PDC to promoting sustainable economic development by targeting and marketing to sustainable businesses for retention, expansion, and recruitment. PDC provided assistance to 77 sustainable service or product businesses last year in the form of financial and technical assistance, site location services, and connections to resources. PDC also expanded its partnership with the Zero Waste Alliance, which helps businesses and developers improve the sustainability of their operations.

## PROMOTING THE ECONOMIC DEVELOPMENT OF SUSTAINABLE INDUSTRIES

Several times a year, PDC and our regional partners attend trade shows to advertise what Portland has to offer. Representatives from PDC, city bureaus and state agencies, Portland General Electric, and the University of Oregon met with dozens of businesses at the Photovoltaic Technology Show in Munich, Germany, generating more than 40 prospective business leads in solar photovoltaic manufacturing industries. More than 3,000 people attended this April 2008 event. Oregon was the only U.S. state with a municipal economic development agency in attendance which maximized a unique business recruiting opportunity.

### WHAT IS A SUSTAINABLE INDUSTRY?

Sustainable industries may be defined as companies that provide a product or service whose use results in greater resource efficiency and/or a reduced negative impact on the environment. Company categories include:

- Green building products & design
- Recycled products
- Sustainable agriculture
- Environmental remediation
- Energy industries

### eROI - A Creative Design Company

Businesses that are not classified as a sustainable industry can still improve their operational sustainability. The fast-growing creative company, eROI, greened their bottom line with the help of Zero Waste Alliance (ZWA), who is under contract with PDC for this purpose. ZWA provides businesses with hands-on technical assistance to develop and implement sustainable strategies that reduce and eliminate waste and toxics from business processes.

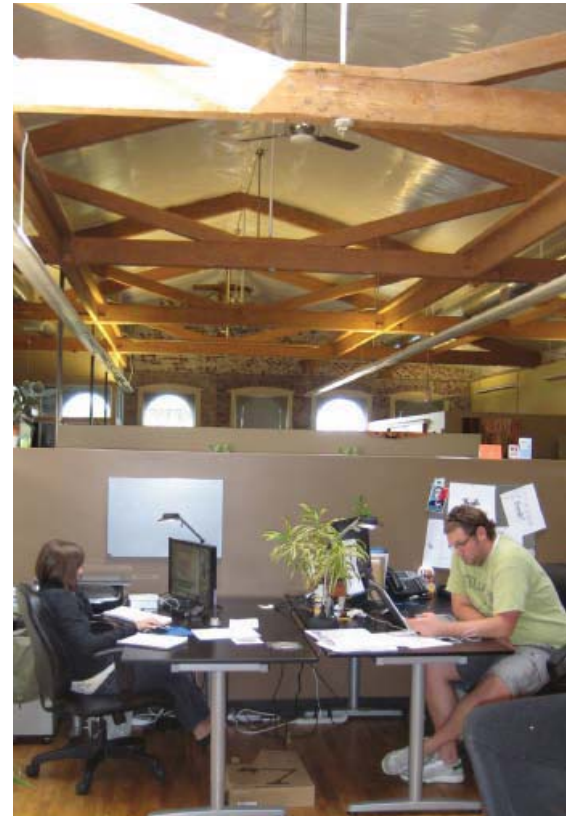
eROI provides online strategic planning, creative design, web marketing and campaign management to more than 50 companies. After purchas-

ing four linked buildings in Old Town's Technology & Arts Block, the company not only has space for its growing number of employees, but enough space to house other small, innovative companies. ZWA worked with eROI to make environmentally protective and cost effective improvements, such as:

- Purchasing energy efficient equipment and lighting;
- Using salvaged building materials;
- Instituting green cleaning practices; and
- Providing TriMet passes to employees free of charge, taking advantage of the new MAX line just outside their door.

PDC provided financial assistance of \$250,000 for tenant improvements using urban renewal funds through the Quality Jobs Program and Economic Opportunity Fund. "ZWA was a huge help. It's important to us to be green and not have to spend a fortune to do so," says eROI president Ryan Buchanan.

PDC provided major funding to the BEST Center – Businesses for an Environmentally Sustainable Tomorrow. Operated by the Office of Sustainable Development, BEST offers businesses a one-stop center for information and assistance with a variety of resource conservation strategies. The center targets small businesses since roughly 97 percent of Portland's business community have fewer than 100 employees.



## GREENING TENANT IMPROVEMENTS AND CONSTRUCTION PROJECTS

Companies investing in tenant improvements and new construction have an opportunity to reduce their risk and improve the health, comfort and safety of employees, while creating a space that is less costly to operate. Numerous studies have established that worker satisfaction and performance improves when occupants have stimulating, dynamic working environments. Daylighting and outside views, opportunities for interaction with co-workers, fresh air ventilation and non-toxic materials also contribute to a healthier, more productive workplace.

### Assurety Northwest in Lents

Assurety Northwest is a full-service insurance and financial services firm previously based in Gresham. Assurety was recruited to move to Lents with the aid of several PDC programs. Its arrival has anchored the Lents Town Center with its new, green-built headquarters. PDC financial assis-



Assurety in Lents; inset above, La Sorelle restaurant

tance helped create a work space that is 100 percent daylit while simultaneously bringing new life to a once-blighted section of Foster Road. Sitting below Assurety's second-story headquarters is a string of new businesses that contribute to the livability of this corner that is an easy walk to the MAX Green Line station opening fall 2009. PDC provided \$1,787,188 for the development and tenant improvements.

## CREATING QUALITY JOBS

### The AIA Center for Architecture

Because family-wage jobs provide for a decent quality of life, PDC supports businesses that create and sustain living wage jobs in the city by linking support for urban revitalization to the availability of these jobs. AIA Portland – a branch of the American Institute of Architects – is one organization that recently took advantage of PDC's Quality Jobs Program. AIA Portland was ready to grow when it received \$210,000 in PDC funding to expand to a larger location and



added new family-wage jobs as a result.

The Center for Architecture (CFA) offers a place for the architecture, engineering and construction industries to gather for events and continuing education. The CFA, a physical demonstration of the Northwest design community's green ideals, is in line to receive LEED Platinum certification. With PDC funding CFA employees are able to better serve and advocate for the architectural community – a target industry that provides creative and sustainable services to Portland.

#### ASSURETY'S GREEN FEATURES INCLUDE:

- 100% of work areas provide access to daylight and views
- 100% of stormwater managed on-site
- 97.66% of the project's construction waste diverted from the landfill
- 40% reduction in building water use
- 25% more energy efficient than code
- 0% of landscaping requires irrigation
- Landscaping and roof use materials that combat the Heat Island Effect
- Use of local, recycled-content, and low-emitting materials
- Redeveloped brownfield



## SUSTAINABLE INTERNAL OPERATIONS

*conserving resources, protecting the environment and reducing climate impacts*

PDC's sustainable initiatives include internal operating programs. A core group of PDC employees – the Green Team – is spearheading the greening of the agency.

PDC seeks to walk its talk by pursuing continuous improvement in the sustainability of our internal business processes, procedures, purchasing, energy and water use, and by promoting transit, biking and walking commuting options for employees.

With the support of the Green Team, PDC's first Sustainability Plan identified 36 of actions to lighten the footprint of its business operations. Those actions include:

- A new policy requiring printer defaults to be set to double-sided printing;
- Replaced 100 incandescent light bulbs in PDC's archives warehouse with compact fluorescent lighting for a lifecycle savings of \$4,078 and a reduction in carbon emissions of 11 metric tons;
- Switched from using paper and plastic kitchenware to durable ceramic kitchenware and metal forks – saving more than \$2,000 a year in paper cups alone;
- Incorporated "environmentally preferable" criteria into contract and solicitation templates; and
- Drafted a Sustainable Purchasing Policy.

### CONSERVING RESOURCES AND PROTECTING THE ENVIRONMENT

#### Reduction in Paper Waste – R.I.P. Campaign

PDC's Green Team staged a friendly competition between the staff on its six office floors. The Reduction In Paper-waste (R.I.P.) contest ran from February through April. The floor that reduced its per capita paper use by the largest percentage won. The staff got into the spirit of the contest when they discovered that the

winning floor would receive a prize on Earth Day: all-you-can-eat ice cream. The objective was to raise awareness about our personal consumption



*PDC's Green Team (left to right): Dan Spero, Lois Cortell, Colleen Welsh, Colin Sears, Kim McCarty, Lisa Gramp, Sarah Gourde, Michael Prothe, Robin Raffety, Cindy Bethell, Ross Plambeck, Alfred Bookman; not pictured: Ana Inclan, Liz Hopkins and Neal Van Horn.*

levels, reduce wasteful resource use, save money, and prepare staff for PDC's new double-sided printing policy that was introduced on Earth Day.

This education campaign included sharing tips on how to reduce paper use. Several business process changes were instituted by the staff as a result. One division developed a system to electronically manage vacation-leave approval forms, significantly reducing the number of paper copies made, and saving staff time and file cabinet space.

Two floors tied for first place and received all the ice cream they could eat, but the real winners were the earth's natural resources and PDC's budget. PDC reduced its printer and copier paper use by 13 percent during the two-month period. If it maintains that savings throughout the year, PDC will save an estimated \$13,000 in paper costs – a goal worth pursuing.

Another leap forward in PDC's paper use reduction came with the electronic publication of PDC's internal weekly newsletter, *PDC People*. Printed on one or two pages of color-print paper

each week, the newsletter was distributed to every person in the office – whether they read it or not. This single change will save 23,500 pieces of paper and \$263 annually.

### NEW SUSTAINABLE PURCHASES INCLUDE:

1. Fluorescent spiral light bulbs;
2. Post-it pads with 100% recycled content;
3. Easel pads, 50% recycled content;
4. Self sticking easel pads with 80% recycled content;
5. Facial tissues with 10% recycled content;
6. Colored copy paper with 30% recycled content;
7. Steno pads with 100% recycled content;
8. Writing pads with 100% recycled content;
9. Non-toxic, locally produced air freshener;
10. Black & white printer toner cartridges that are recycled by a non-profit that hires people with disabilities.



Ana Inclan, Bruce Gier and Robin Raffety won the Save the Planet Award for their enthusiastic work on PDC's Green Team.

### Sustainable Purchasing

Twenty percent of the types of office products that PDC purchases were switched this past year to products that are more energy efficient, contain a higher recycled content, contain no toxic components, are manufactured locally, are more durable or are reusable in comparison to products previously purchased.

### Electronics Recycling

PDC's Information Technology staff is very conscientious when it comes to reusing and recycling used electronics.

Last year PDC donated 24 phased-out laptops to Portland Youth Builders, an organization that teaches young people computer maintenance skills. The refurbished laptops are then provided to nonprofits such as Friendly House. PDC also recycled 79 cathode ray tube monitors, 836 pounds of monitors and 2,047

pounds of mixed electronics, turning them over to a certified electronics recycling vendor.

### ENHANCING PDC'S SUSTAINABILITY CULTURE

Culture change is one of the objectives in PDC's Sustainability Plan. One approach to achieving this objective is to provide staff with a variety of opportunities to better understand and embrace the many facets of sustainability.



PDC IT staff standing behind some of the CPUs ready for donation.

During 2007-2008, PDC arranged 26 different education and training opportunities. Staff attended "green bags," LEED training sessions, and eco-documentaries. Special presentations were given by Oregon Secretary of State Bill Bradbury on the impacts of climate change in Oregon, and by construction and architecture firms, and green building consultants. Many staff members also attended Oregon Environmental Council's Business and the Environment Lecture Series.

An Inconvenient Truth, Crude Awakening and Who Killed the Electric Car were staff favorites in the series of after-hours eco-documentaries presented at PDC during fall and winter months.

### EARTH DAY 2008 – TURNING OVER A NEW LEAF

This year, PDC's Earth Day celebration was designed to "Engage, Educate and Mobilize" every staffer at PDC to Turn Over a New Leaf – the day's theme. A Sustainability Fair was arranged and events throughout the day were planned to provide everyone new opportunities to make their lifestyle more sustainable.

Earth Day kicked off with an inspiring address by Mark Edlen of Gerding Edlen Development, who spoke to the staff about how all Portlanders must be willing to take the next step in making their lives and community more sustainable. He also drove home the point that there is no time to waste to reduce our impacts on the climate and environment.



**STAFF PLEDGES IN THEIR OWN WORDS:**

- Stop buying water in bottles
- No more coffee in a paper cup
- Ride my bike to work
- Lower my heat to 50° F when not at home
- Use my PDC tote bag for groceries
- Walk to my bus stop
- Use less plastic
- Ride my bike to work 10 days in the rain
- Sign up to receive all bill statements via email
- Make own cleaning solutions
- Install a rain barrel
- Start a composting program at my apartment community
- Switch to low-flow shower heads
- Replace six incandescent light bulbs with compact fluorescents
- Stop my junk mail
- Take shorter showers – “one song only”



**Sustainability Fair**

PDC's Sustainability Fair featured seven booths where employees could sign up to purchase Green Energy, learn about organic nutritional products, composting and green cleaners, learn how to get a free energy audit for their homes, and more.

The day included spring cleaning with green cleaners, file archiving, recycling and collecting extra desk office supplies for reuse. Especially popular were the acupuncture sessions offered

by the Oriental College of Medicine, and the organic lunches ordered from New Seasons. In the afternoon staff enjoyed a Junk to Funk homemade accessories display and silent auction as a Green Team fundraiser.

In preparation for Earth Day, the Green Team held a native plant sale fundraiser to pay for lunch and other Earth Day costs. The staff came in droves and the plant sale was very successful.

Dozens of gardeners took home beautiful native and drought-resistant plants, bushes and trees. The fundraiser netted \$232, enough pay for the Earth Day activities. The successful sale helped us select the theme for Earth Day, Turning Over a New Leaf.

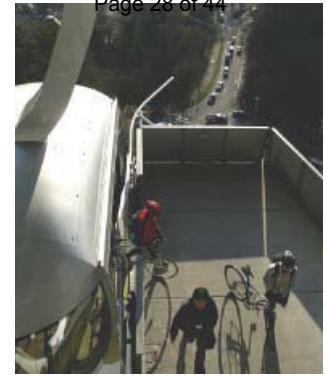
PDC provided 100 reusable vegetable-fiber totes for the staff, to reduce the wasteful use of plastic and paper bags. The totes were a popular item on Earth Day. To receive one, staff members had to sign a pledge (on a leaf made from the covers of paper reams) committing to at least one new sustainable lifestyle commitment for the year. About 90 pledges were signed.



### REDUCING CLIMATE IMPACTS

In the 2006/07 Sustainability Plan, PDC identified 13 actions to reduce the energy use and climate impacts of PDC operations. Twelve actions are complete; the one remaining is on-track for timely completion. They included purchasing 100 percent green energy by 2010, performing a cost/benefit analysis of purchasing low-emissivity window film, initiating a campaign to promote the use of alternative transportation, purchasing computer monitors that are highly energy efficient, and more.

and shower facilities. PDC is an active member of Zipcar and keeps an on-site "flex-bike" for quick trips to meetings across town. According to one bike user, "I can be downtown for a meeting in five minutes on the bike."



To help employees reduce the economic and environmental impacts of their commute, PDC offers a transit subsidy of \$45 to \$51 per month, saving 60 percent on the cost of a monthly bus

pass. A Bike to Work Commuter Benefit encourages employees to cycle to work, providing a \$20 per month incentive for cyclists, and walkers receive a \$10 incentive. These incentives are available to all employees who commit to using these travel modes 80 percent of the time. Table 4 shows the number of PDC employees receiving commuting subsidies during the past two years. The table does not show how many staffers bike, walk or use transit to get to work but do not receive the subsidy



The employees shown above represent over of PDC's Bike Club.

Transit, Carpooling, Biking and Walking at PDC Table 4				
Travel Mode	FY 2006/07		FY 2007/08	
	Number of Staff Subsidies	% of Staff subsidized	Number of Staff Subsidies	% of Staff Subsidized
Bike/Walk	18	9%	17	8%
Tri-Met Pass	87	43%	99	48%
Carpool	6	3%	7	3%
C-Tran	9	4%	7	3%
Total # Staff	202		207	
Total # Passes	120	59%	130	63%

#### Alternative Transportation

Transportation contributes 40 percent of our region's carbon emissions. PDC seeks to reduce its carbon footprint by promoting transit, biking, walking and carpooling. Employees who opt for alternate transportation options for their commute to work can take advantage of subsidies, workshops,

since they do so less than 80 percent of the time. Last year, an average of 63 percent of PDC employees received subsidies for their use of alternative transportation, four percent more than the previous year. In addition to offering transit subsidies, PDC encourages alternative transportation by participating in two city-wide challenges. In September 2007, more than 22 percent of PDC employees participated in the Bicycle Transportation Alliance's Bike Commute Challenge. After making a total of 493 commutes during the month, PDC applied for and won one of two free bikes offered by the Challenge. During 2008, PDC's Bike Team created a colorful campaign to engage even more employees. Posters, booths, how-to workshops, prizes, a bike-buddy system and more brought new employees into the Bike Club.



For the 2007 Carefree Commuter Challenge (which promotes the use of transit, carpooling, biking and walking), PDC won first place in the large "public agency" category. PDC's participation rate was a stunning 32 percent – easily surpassing our 2006 participation of 8.5 percent.

### Water and Energy Consumption

PDC's environmental footprint includes the water and energy consumed by our leased office space, the Mason-Ehrman Building. The water and energy consumption of the building and PDC's approximately 230 employees, temporary staff and interns is well below national averages. Although consumption has increased slightly during the past three years, the size of PDC's staff using the building has also increased.

The Texas State Energy Conservation Office, a benchmarking source used by the Portland Water Bureau, reports that the water use in "water-effi-

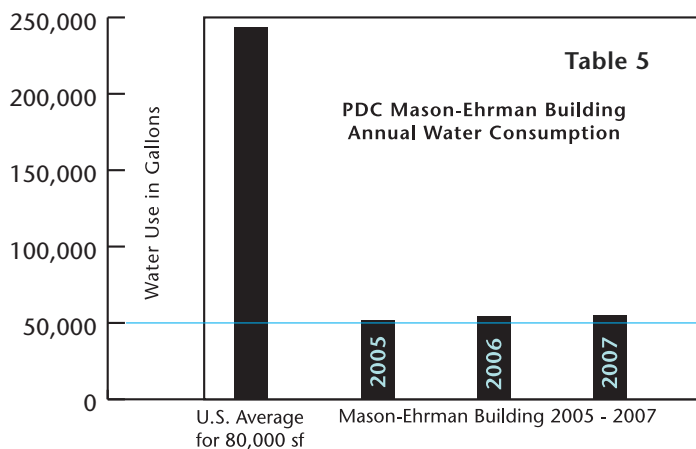
cient." In other words, PDC's water consumption is 67 percent to 75 percent less than the national average.

### Energy Use

PDC's leased office space is a major contributor to the agency's carbon footprint. Several actions in the 2006/07 Sustainability Plan increased the building's energy efficiency. These actions included replacing several types of office equipment with more energy efficient models and switching the last incandescent lights to compact fluorescent lighting. Based on PDC's total electricity and natural gas use, the building's carbon emissions are less than 600 tons per year.

In comparison with other buildings of its type, the Mason-Ehrman Building uses much less energy than the national averages. Table 6 shows the Mason-Ehrman Building's energy use in comparison to the Commercial Building Energy Consumption Survey (CBECS), gathered by the Energy Information Administration of the U.S. Department of Energy.

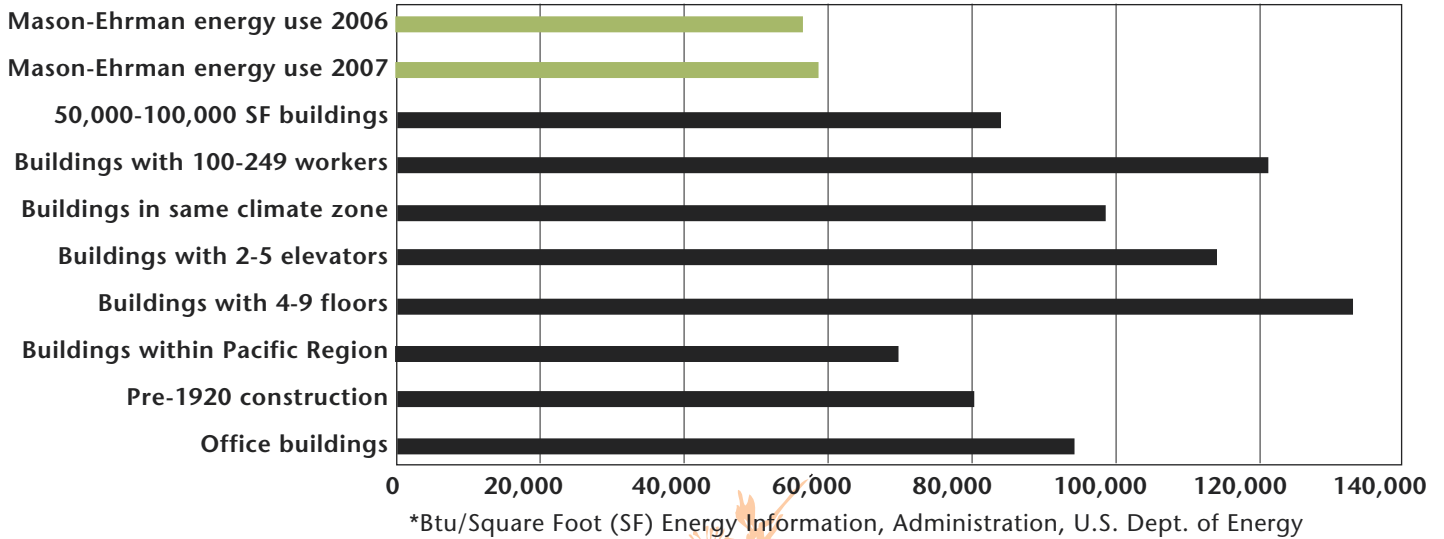
CBECS data aggregates the energy use of buildings by type, size, geography and other categories, across the United States. Table 6, on the following page, shows energy use per square foot of buildings with the same characteristics as PDC's.



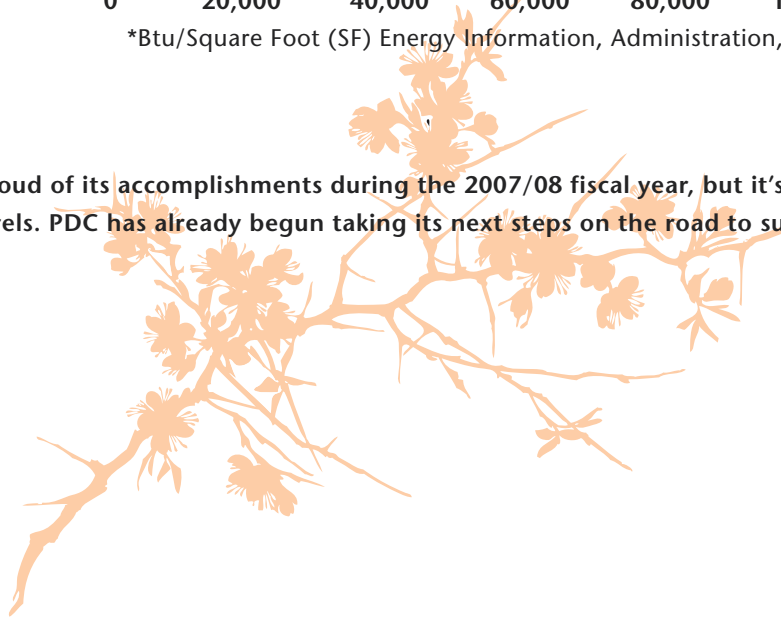
cient" office buildings ranges between 26 to 35 gallons per square foot, per year. For buildings of PDC's size – 80,000 square feet – that range would be between 2,080,000 and 2,800,000 gallons per year. At just over eight gallons per square foot, per year, PDC's water use is significantly below the average for water-efficient buildings. Using this scale, PDC's building water use for 2007 was between 25 to 33 percent of the water used by buildings considered "water-

Year	Natural Gas Use (Therms)	Electricity Use (kWh)	Total Energy Use (Btu)	Total CO <sub>2</sub> (Tons)
2006	4,627.8	1,186,985	4,513,959,805	521.10
2007	4,999.1	1,217,198	4,654,206,774	535.75

**Average Energy Use by Building Type\* Table 7**



PDC is proud of its accomplishments during the 2007/08 fiscal year, but it's not sitting on its laurels. PDC has already begun taking its next steps on the road to sustainability.





APPENDIX I.

<b>Portland Development Commission Sustainability Progress Report: 2007 - 2008</b>						
<b>Goal One: Update, Promote and Facilitate the Implementation of PDC's Green Building Policy and Sustainability Practices</b>						
<b>Objective</b>	<b>Measure of Success</b>		<b>Time Frame</b>	<b>Action Items</b>	<b>Status</b>	<b>Results</b>
		<b>Results</b>				
Develop new Green Building Policy that places PDC among leading sustainable development agencies	Percent projects that meet a third-party verified green certification	100% of the those required under our current policy	2-year objective	Examine pros and cons of requiring PDC-funded commercial/retail developers to achieve the ASHRAE 189.1	Completed	PDC determined that ASHAE 189.1, which is code-based, would not meet our needs.
				Incorporate third-party verification for all PDC green building certifications	Completed	March 2007 City Council Resolution prompted development of a new city-wide policy, PDC is a collaborator
Update / clarify PDC's 2005 Green Building Policy Guidelines	A new policy is drafted and awaits approval	Completed	2-year objective	Update the Greening Affordable Housing Criteria	Completed	PDC led Coalition to draft the Green & Healthy Affordable Housing Policy, which contains third-party verification and social equity specifications
				Clarify the tenant improvement project certification requirements	In process	
Develop mechanisms to institutionalize the Green Building Policy throughout PDC's business procedures	Number of legal documents updated to specify the green building requirements	Four	1-year objective	Standardize a process to certify completion of the Green Building project requirements (Certificate of Completion)	In process	
				Review relevant legal documents to ensure they contain clear consistent language regarding PDC's policy requirements	Completed	RFQ, RFP, DDA, & Loan Application Checklist were updated with policy language
Improve compliance with the Green Building Policy; create Compliance Assist. Program	Percent of projects that meet or exceed PDC's certification requirements	100%	1&2-year objective	Improve monitoring and tracking of policy implementation; address the need for adequate staffing for post-funding project monitoring	In process	PDC is developing new IT infrastructure; a monitoring and tracking system will be incorporated
				Develop business case documents and brochures that provide the financial rationale for building green, provide current case studies that highlight the challenges and benefits, and provide guidance on policy implementation	Completed & Ongoing	A Green Building Primer and Business Case paper was developed and posted; Guidance and policy documents developed (N. Peart; Centennial Mills)
				Develop a mentoring program for developers, including small, emerging, women and minority who lack green development experience	In process	Collaborations with Business Equity staff are ongoing to develop a mentoring program

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Portland Development Commission Sustainability Progress Report: 2007 - 2008					
Goal One: Update, Promote and Facilitate the Implementation of PDC's Green Building Policy and Sustainability Practices					
Objective	Measure of Success	Time Frame	Action Items	Status	Results
Develop incentives to facilitate and advance PDC's Green Building Policy	Percent of PDC projects that comply with the policy		For recipients of loans and grants, get a commitment to their project's sustainability goals early in the process (letter of intent) Partner with Portland State University to design and fund a study on the costs, benefits and return on investment for specific green building elements Market PDC green building technical services to developers and contractors	In process	Approach has been beta tested; will be institutionalized this year
	100%			Completed	Study commissioned by PDC last year and a report is expected this winter
Develop incentives to facilitate and advance PDC's Green Building Policy	Percent of developers receiving matching funds whose projects meet or exceed PDC's Green Building Policy requirements	1&2-year objective	Provide matching funds for eco-charrettes and green consulting services to qualifying developers Assess feasibility of creating flexible services contract with green building consultants for Minority/Women/Emerging Small Business to access competitive rate services Explore a program to offer developers a Pass-through Option for BETC credits, with access to the cash incentives during construction Develop public sustainability web site; promote / communicate goals, policies and incentives; provide case studies; advertise training Develop an awards program to recognize developers for their green building sustainability achievements	Completed	Outreach includes training, brochures, web site, working with project managers and developers
	Of those requested, 50% received funding for an eco-charrette			Completed	Eco-charrettes and green consulting services are funded as-needed/ as-requested This arrangement as proposed is not feasible, but an alternate strategy is being assessed PDC instituted bridge loans, short-term loans up to \$100,000, accessible by developers during construction A public sustainability webpage was created This action will be carried over to PDC's 2008-2009 Plan

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Goal Two: Grow Sustainability Expertise at PDC and in the Development & Business Communities					
Objective	Measure of Success	Time Frame	Action Items	Status	Results
Provide PDC Staff with training opportunities to equip them to become sustainability professionals, prepared to implement PDC policies	<b>Results</b> Survey the staff to determine whether they understand PDC's sustainability policies and feel better prepared to implement them	Ongoing	Annually assess staff training needs	Completed	Twenty-six training/education opportunities included "green bags," eco-documentaries, lectures, two LEED AP training sessions, LEED ND presentation, LEED Silver affordable housing projects, sustainable operations and Earth Day sessions
	No formal survey was conducted		Develop a PDC staff sustainability training agenda with objectives and cost estimates	Completed	
Provide training opportunities for Minority, Women, and Emerging Small Business, and others in the business and development communities	Initially, the measure will be how many people are served by PDC's targeted training opportunities	Ongoing	Provide the needed professional, technical and other training opportunities	Completed	Met bimonthly with OSD to coordinate training, worked with National Association of Minority Contractors, Oregon Association of Minority Entrepreneurs, MWESB firms
	109 individuals received training	Ongoing	Coordinate with the Office of Sustainable Development, lead M/W/ESB organizations to assess training needs and develop annual Green Development Training Plan	Completed	Training sessions were developed for MWESB and nonprofit developers to prepare for the LEED AP exam
			Develop green building training modules targeted to the needs of medium-size and M/W/ESB developers	Completed	PDC is collaborating with Earth Advantage and Conservation Services Group and to arrange training in the green building trades
			Look for public and private partnering opportunities to provide training	Completed	As above
			Provide training opportunities that address a variety of developer needs	Completed	
Goal Three: Promote Sustainable Economic Development					
Objective	Measure of Success	Time Frame	Action Items	Status	Results
Target marketing to sustainable businesses for retention,	<b>Results</b> Assistance provided to 40 businesses	2-year objective	Provide business development tools, including financial incentives and technical assistance to foster sustainable target industry development	Completed / ongoing	Businesses received financial, permitting / site location assist., referral to resources, for business expansion/relocation of wave/solar energy, & biofuel companies
	77 businesses were served				







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	<p>1) CFLs for 100% of the lighting needs, 2) efficient LED monitors, 3) phasing in new ballasts that use half the wattage of current model</p>	<p>Assess the costs and energy efficiency benefits of phasing in the purchase of fewer large servers versus many smaller servers</p> <p>Phase in 100 percent use of compact fluorescent lamps or LED lighting</p>	<p>Completed</p> <p>Completed</p>	<p>The IT department decided to take a different approach and is now using virtual servers</p>	
<b>Goal Five: Purchase Sustainably and Reduce Natural Resource Depletion</b>					
<b>Measure of Success</b>					
<b>Objective</b>	<b>Results</b>	<b>Period</b>	<b>Action Items</b>	<b>Status</b>	<b>Results</b>
<p>Develop a Sustainable Purchasing Policy</p>	<p>Number of products purchased from local vendors annually</p>		<p>Implement a "Buy Locally" procedure wherein the largest number of office products feasible is purchased from local vendors</p>	Completed	<p>The "buy locally" requirement is a component of PDC's draft Sustainable Purchasing Policy and is in use</p>
	<p>Three: air freshener from Wilsonville; chairs from Hillsboro, remanufactured toner cartridges from Portland</p>	<p>Add language to solicitations / contracts, require use of recycled products, purchase remanufactured toner cartridges</p> <p>Institute a cell phone take-back program</p>	Completed	<p>Language added to Personal Services Contract Template; remanufactured toner cartridge use requirement added to criteria</p>	
	<p>The percentage reduction in paper cups purchased</p>	<p>Institute a PDC Mug Program to reduce paper cup use by staff and visitors</p>	2-year objective	<p>Instituted reusable kitchenware policy for mugs, plates, and flatware</p>	
	<p>Estimated 90-95%</p>	<p>Increase the percent of chlorine free, 100% recycled content paper purchased by PDC</p> <p>When paper plates are needed, purchase biodegradable products</p> <p>Promote products that do not use excessive packaging</p>	Completed	<p>Recycled content was increased from 30% to 40%</p> <p>Used biodegradable service ware for Earth Day, then purchased ceramic kitchenware</p> <p>Is a criterion in Draft Sustainable Purchasing Policy</p>	
<p>Use purchasing and other means to reduce staff exposure to toxic substances</p>	<p>Alternatives to at least three products with toxic properties are identified and purchased</p>	2-year objective	<p>Minimize, to the greatest extent possible, the use of hazardous products by purchasing safer alternatives</p> <p>Require the use of Green Seal 37 compliant cleaning products</p> <p>Require contractors, to the greatest extent feasible, to incorporate environmental sustainability into their services</p>	Completed	<p>Toxic Industrial air Freshener replaced with local, natural brand; plastic-lined paper cups replaced with ceramic mugs</p> <p>We're working with our cleaning services vendor to change their products to GS 37</p> <p>Sustainability criteria have been added to our solicitation contracts</p>
	<p>2 products were replaced</p>		In progress		
	<p>Added sustainability criteria to contracts</p>	<p>Completed</p>	Completed		

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Goal Five: Purchase Sustainably and Reduce Natural Resource Depletion					
Objective	Measure of Success	Period	Action Items	Status	Results
Expand and further institutionalize recycling at PDC	PDC becomes Recycle at Work certified		Attain PDC BlueWorks certification by the Office of Sustainable Development	In progress	Program was upgraded, now called Recycle At Work; PDC has two more requirements to fulfill to qualify
	100% of functional electronics no longer needed, are donated	1-year objective	Establish a protocol for regular electronics reuse, working with schools and non-profits, and for recycling non-functional electronics	Completed	IT department systematically recycles electronics; donates outmoded monitors and computers to Portland Youth Builders
	100% of non-functional electronics are recycled		Replace use of nonrecyclable products, such as foam board with more sustainable materials	Completed/ Ongoing	Instead of replacing the foam board in use, PDC is reusing its existing stock, reducing the need to purchase new materials
	100% achieved				
Develop PDC Paper Policy to increasingly reduce, reuse and recycle paper	Percentage reduction in average annual purchase of paper, and resulting cost savings		Require that staff use double-sided printing unless single-sided is required	Completed	PDC requires double-sided printing for all printing jobs feasible
	Savings are still being assessed		Develop procedures on paper reuse	Completed	Procedures are developed and distributed to staff
	Unsolicited mail is reduced by 25% from an identified baseline	1-year objective	Phase in the use of GreenPrint software to automatically reduce paper and toner waste	Withdrawn	City pilot study reported too many glitches in the GreenPrint software to implement
	Not achieved		Reduce PDC's unsolicited "junk" mail	Incomplete	PDC has researched but did not implement junk mail reduction
			Create an administrative Policy on electronic record keeping to replace paper record keeping to the greatest extent feasible	In progress	Initiated a pilot program for electronic record keeping as first step in a new document management system



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Goal Six: Enhance PDC's Sustainability Culture through Communication, Education and Training					
Objective	Measure of Success	Time frame	Action Items	Status	Results
Provide regular staff training, learning opportunities and materials to inculcate sustainability into PDC's culture and operations	Results				
	Two or more formal opportunities for staff training are arranged annually		Distribute the Annual Sustainability Plan to staff and provide training to promote the implementation of its objectives Develop innovative ways to use the Sustainability Site on PDC's Intranet to grow the sustainability culture Celebrate and publicize PDC's successes to allow staff to embrace and take pride in their sustainability accomplishments Ongoing Institutionalize the promotion of sustainable practices in the Employee, Purchasing, and other Manuals and official documents Create an individual "competency" specific to sustainability as part of the Performance Management Program Develop an awards program to honor employees for their exemplary service	Completed Completed Completed In process In process In process	Link to the Plan on PDC's internal website was emailed to all staff Intranet links to CO <sup>2</sup> emission calculators, events calendar, carpool partners, eco-news, documents, etc. PDC People (weekly newsletter) reports staff accomplishments; staff receive "Save the Planet" awards for leadership; gifts for staff competitions Focus was drafting policies, next year will focus on their integration into manuals/admin procedures Proposed to make two sustainability training sessions per employee/per year mandatory "Save the Planet Award" was given to four staff members, honoring their leadership in
Provide materials to help staff implement new and continuing sustainability policies and procedures; communicate the rationale for the new policies	Survey employees at end of year to assess their perception of the usefulness and quality of the training and communication strategies		Inform new employees of PDC's sustainability policies and procedures Broaden and diversify the promotion of staff learning opportunities and provide useful learning tools and resources Ongoing Arrange fundraisers to provide incentive prizes for Earth Day, bike ride promotions and other special events	In process Completed Completed	Implementation awaits a new approach to employee orientation that Human Resources is developing Opportunities: eco-movies, green bags, presentations / training, internal web site, creation of a Sustainability Lending Library Green Team hosted native plant sale, raised \$232 to provide an organic lunch/ice cream on Earth Day and defray other expenses
	Not accomplished				



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2007-2008 Fiscal Year Green Building Achievements of PDC-Assisted Development Projects

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Project Name	Urban Renewal Area	Address	Developer	Type of Project	Date DA/DDA Signed	PDC Funding Assistance	Policy Certification Required	Required in DA / DDA	Registered with USGBC*	Certification
Beech Street	Oregon Convention Center	3701 NE MLK Jr., Blvd	Beech Street Partners	Retail Commercial	05/07	Land sale only	LEED Silver	LEED NC Silver	Yes	Anticipate Silver
Eliot Tower	South Park Blocks	1221 SW 10 <sup>th</sup> Ave	Carroll Investments, LLC	Residential	11/03	Land sale only	LEED Certified	LEED ND Certified	Yes	LEED ND Silver 12/08
Fremont Project	Oregon Convention Center	3510 NE Martin Luther King, Jr. Blvd.	Fremont Partners, LLC	Retail/ Office	01/04	\$2,160,000	LEED Certified	LEED NC Certified	Yes	Anticipate LEED NC Certified
Henry V Events	Oregon Convention Center	6360 NE MLK Jr., Blvd	Patrick Eckford, Henry V Events	Commercial/ Manufacturing	06/04	\$1,160,000	LEED Certified	LEED NC Certified	Yes	LEED NC Silver 06/08
Heritage Building	Oregon Convention Center	3934 NE MLK Jr., Blvd	Eric Wentland	Retail/Office	01/03	\$2,450,000	LEED Certified	LEED NC Certified	Yes	LEED NC Gold 2007
Assurety Northwest	Lents Town Center	8931 SE Foster Rd	Assurety NW	Commercial Retail/Office	08/06	\$1,480,000, \$307,188 for TI	LEED Silver	LEED NC Silver	Yes	LEED NC SILVER 2008
River East Center, Holman Building	Central Eastside	1515 SE Water Ave	Group McKenzie & Coaxis	Commercial	06/05	\$1,000,000 Seismic, \$1,400,000 for TI	LEED Certified	LEED NC Certified	Yes	LEED NC Gold 2008
Madison Place	South Park Blocks	1140 SW 11 <sup>th</sup> Ave	Sockeye Development	Residential	01/05	Land sale only	None	None	Yes	Anticipate LEED Silver
Meier & Frank Bldg / Macy's - Federated Dept. Stores	River District	621 SW 5 <sup>th</sup> Ave	Macy's Federated Department Stores	Commercial Rehabilitation	12/05	\$60,000 pre-development study costs shared	N/A	LEED CI 2.0 Certified	Yes	Anticipate LEED CI Silver
M&F Bldg / The Nines Hotel	River District	525 SW Morrison	Sage Hospitality	Commercial Rehabilitation	12/05	\$16,900,000	LEED Certified	LEED NC 2.1 Silver	Yes	Anticipate NC Silver
One Waterfront Place	River District	1201 NW Naito Parkway	Winkler Development	Commercial Office/Garage	12/08	\$4,000,000	LEED Silver	LEED NC Gold	Pre-certified for LEED NC Platinum	Anticipate LEED NC Platinum
Oregon Clinic	Gateway	1111 NE 99 <sup>th</sup> Ave, 97220	Gerding/Edlen Development	Property conveyance	04/05	\$19,000,000 in NMTC	LEED Silver	Silver	Yes	LEED NC Gold 06/07

2007-2008 Fiscal Year Green Building Achievements of PDC-Assisted Development Projects

APPENDIX II.

Project Name	Urban Renewal Area	Address	Developer	Type of Project	Date DA/DDA Signed	PDC Funding Assistance	Policy Certification Required	Required in DA / DDA	Registered with USGBC*	Certification
South Waterfront Central District Projects				16-block area public / private projects	2003	Project Specific	LEED Certification for 75% of development	Certified	Project Specific	Project Specific
The Meriwether	S. Waterfront	836 SW Curry St., 3570 SW River Parkway	Gerding/Edlen Development	Multi-family Housing	2003	Infrastructure only	Silver	NC Silver	Yes	LEED NC Gold 2008
The John Ross	S. Waterfront	3601 SW River Parkway	Gerding/Edlen Development	MFH	2003	Infrastructure only	Silver	Silver	Yes	Anticipate Gold
The Alexan	S. Waterfront	3732 SW Moody Ave.	Trammell Crow Residential	MFH	2003	Infrastructure only	Silver	Silver	Yes	Anticipate Silver
The Ardea	S. Waterfront	3720 Bond Ave.	Gerding/Edlen Development & Williams & Dame Development	Apartments	2003	Infrastructure only	Silver	Silver	Yes	Pending
The Mirabella	S. Waterfront	3521 SW River Parkway	Pacific Retirement Services, Inc	Continuing Care Retirement Community	2003	Infrastructure only	Silver	Silver	Yes	Pending
Atwater Place	S. Waterfront	841 SW Gaines Street	Gerding/Edlen Development	MFH	2003	Infrastructure only	Silver	Silver	Yes	Pending
Vanport Phase 1	Oregon Convention Center	5201 NE MLK Jr., Blvd	Marco Properties, LLC	Office/Retail Commercial Condos	03/06	\$6,557,640	Silver	Silver	Yes	Anticipate LEED Gold
White Stag, Block LLC	Downtown Waterfront	70 NW Couch St	Venerable Properties	Higher Ed, Retail, Restaurant	10/06	\$2,500,000 \$19,000,000 in NMTC	None (less than 10% of project)	NC Silver	Yes	Anticipate LEED Gold
Ziba World Headquarters	River District	810 NW Marshall	Ziba Design	Commercial Office	1/06	\$700,000 QJP/EOF	None	None	Yes	Anticipate LEED NC Gold

Housing Development

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Project Name	Urban Renewal Area	Address	Developer	Project Description	Funding Assistance	Approval	Green Criteria	Certification
Block 49	South Waterfront	SW Lowell and Bond	William & Dames	Affordable Housing	\$14,000,000	Pending	Earth Advantage (EA)	Anticipate Earth Advantage
Cambridge Court	Interstate	5224 N. Vancouver Ave.	Housing Authority of Portland	Affordable, Transitional	\$931,576	11/08	Greening Affordable Housing (GAH)	Pending
Columbia Knoll	N/A	8200 N.E. Sandy Blvd.	Shelter Resources Mark Miller	208 units Affordable Senior Independent Living / 116 units Affordable Multi-Family Housing & Day Care Center	\$3,000,000	10/06	GAH	Pending
Crane Historic Rehabilitation	River District	710 NW 14 <sup>th</sup> Ave.	Crane Building Investors, Inc.	Mixed Use-Affordable Housing	\$1,000,000	11/06	GAH	Pending
Crown Motel/Patton Park Apartments	Interstate	5204 N. Interstate Avenue	REACH Community Development	54 Units of Multi-Family Affordable Housing	\$3,467,500	Under Construction	GAH	Pending
Fenwick Ave. Apartments	Interstate	8428 N. Fenwick	Housing Authority of Portland	27 Units of Multi-Family Affordable Housing	\$1,380,211	09/2004	GAH	Pending
General Automotive Building	Downtown Waterfront	809 NW Flanders	General Automotive Bldg. LLC	Affordable Housing	\$1,400,000	02/08	GAH	Seeking LEED Silver
Headwaters at Dolph Creek	NA	3131 SW Marigold St.	Winkler Development Corp.	Market-Rate Housing	\$641,742	09/05	EA	EA and LEED Silver 06/07
JER Portland Hotel (The Biltmore)	Downtown Waterfront	300 SW 6 <sup>th</sup> Ave.	JER Portland Hotel, LLC.	Affordable Housing	\$1,524,889	01/08	GAH	Seeking LEED Silver
Killingsworth Station	Interstate	5510 N. Interstate Avenue	Winkler Development Corp.	54 Affordable For - Sale Housing With Commercial storefronts at ground floor.	\$ 1,830,000 construction; \$ 1,050,000 Home Buyer Loans; \$ 900,000 Commercial Tenant Improvements	Scheduled to Break Ground March 2009	GAH, LEED Silver for Market Rate Housing	Anticipate LEED NC Silver



Housing Development

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<b>Leander Court</b>	3-story wood	4600 SE 122 <sup>nd</sup> Ave.	Rose Community Development	Affordable, Transitional		9/07	GAH	Pending
<b>The Morrison Apartments</b>	South Park Blocks	1959 SW Morrison	HAP / Gerding Edlen Development, LLC	Mixed-use, Affordable Housing	\$500,000	06/05	GAH	LEED NC Gold
<b>Pardee</b>	Lents	Se Pardee and 122 <sup>nd</sup>	Tom Walsh, Jr.	Affordable Housing	\$970,000	Under construction	Oregon High Performance Homes (HPH)	Seeking Oregon HPH
<b>Piedmont Place, Phase II</b>	Oregon Convention Center	6445 NE MLK Blvd	City House Builders	Affordable Housing & Mixed Use	\$1,140,000	Pending	EA	Seeking Earth Advantage
<b>Shaver Green</b>	Interstate	4011 N.E. MLK Jr. Blvd.	Armstrong / Stafford LLC	85 Units Very Low Income affordable Multi-Family Housing	\$3,140,800	Scheduled for Completion December 2009	Registered for LEED NC 2.2	Anticipate LEED NC Gold
<b>The Jeffrey</b>	South Park Blocks	1201 SW Eleventh Ave	E & F Properties	Affordable Housing	\$9,152,342	Construction Completed June 2008	Registered LEED NC 2.2	Anticipate LEED NC Silver
<b>Urban League</b>	Oregon Convention Center	10 N. Russell	PCR, Inc	Affordable Housing	\$1,397,834	Under Construction	G/Rated	Pending
<b>Watershed At Hillsdale</b>	NA	6388 SW Capital Hwy.	Community Partners for Affordable housing	Affordable Senior Housing, mixed use	\$866,732	12/06	EA/GAH	Registered for LEED Silver
<b>Eastgate Station</b>	NA	N.E. 120 <sup>th</sup> Avenue (North of Burnside	Specialized Housing	Affordable Multi-family Assisted Living Hsg. 10 Permanent Supportive Hsg.	\$ 1,045,970	Scheduled to break ground March 2009	GAH	Pending
<b>Esperanza Court</b>	NA	S.E. 28 <sup>th</sup> Ave. (South of Powell Blvd.)	Catholic Charities	Affordable Multi-Family Housing	\$ 2,700,000	Scheduled for occupancy October 1, 2008	GAH	Pending

Tenant Improvement Loans

APPENDIX II.

Company	Address	Funding Assistance	Leverage	Approval	Certification	Status	Due Date*
AIA/Portland Chapter	403 NW 11th Ave.	\$210,000	\$1,572,244	8/23/07	Seeking LEED EB Platinum	Registered	N/A
Alta Planning & Design	1638 NE Davis	\$940,000	\$612,589	9/13/07	G/Rated	G/Rated	04/08
Ararat Bakery	111 NE MLK Blvd	\$553,000	\$65,000	3/22/07	G/Rated	G/Rated	06/08
BOORA Architects, Inc.	720 SW Washington, Suite 800	\$457,000	\$2,951,270	8/30/07	Seeking LEED EB Platinum	Registered	N/A
eROI	1200 NW Naito Parkway, Suite 110	\$250,000	\$300,000	7/30/07	G/Rated	G/Rated	N/A
Frank Creative	2505 SE 11 <sup>th</sup> Ave	\$79,000	\$229,597	1/10/08	G/Rated	G/Rated	N/A
Mercy Corps	3015 SW 1st Avenue	\$750,000	\$37,266,631	2/14/08	Seeking LEED EB Gold	Registered	11/09
RV Kuhns & Associates	1000 SW Broadway, Suite 1680	\$990,000	\$8,361,699	11/16/06	G/Rated	G/Rated	9/08
SD Deacon Construction	0720 SW Bancroft Street	\$514,475	\$5,288,750	11/9/06	G/Rated	G/Rated	04/07

\* Commitment date in loan agreement for achieving specified certification. N/A indicates that companies voluntarily sought the certification.







222 NORTHWEST FIFTH AVENUE, PORTLAND, OR 97209

[www.pdc.us](http://www.pdc.us)



[www.pdc.us/sustainability](http://www.pdc.us/sustainability)

**DRAFT**

**Bureau of Housing**  
**2009 Green and Healthy Affordable Housing Policy**

**February 20, 2009**

## Green & Healthy Affordable Housing Policy Section

### — Policy Recommendations —

- A. Applicability.** The requirements of the Green and Healthy Affordable Housing Policy apply to new construction and major rehabilitation of multi-family rental housing projects in the City of Portland in which at least 40 percent of housing units will be occupied by those earning zero to 60 percent of the median family income (MFI).
- B. Green Building Certification.** To verify that the environmental, health and cost saving measures of green construction have been achieved, green design and construction specification requirements shall be verified by a third-party using existing market-based green building rating systems.

**Depending on the size of the project, it is required that at least one of the following third-party verified green building certifications be achieved.**

Project Size	Certification Requirement
Townhomes, Duplexes, Triplexes and Rowhouses of 4 or fewer detached units	Enterprise Green Communities
New construction and < 60,000 sf in size	Earth Advantage Silver
New construction and major rehabilitation ≥ 60,000 sf in size	LEED v.3 for New Construction Silver

- C. Bureau of Housing Funded Projects.** Multi-family rental housing projects that receive loans and/or grants from the City of Portland in the amount of \$500,000 or more, the following requirements are mandatory.
- 1. Indoor Air Quality.** To protect the health of vulnerable populations and other building occupants, **At a minimum, projects must,**
    - a) Comply with the engineering standard, ASHRAE 62.1 or 62.2 – minimum ventilation standards for low and high-rise buildings to limit the chemical, physical, and biological indoor contaminants, and**
    - b) Not install composite wood products that contain synthetic urea formaldehyde. These materials include hardwood plywood, particleboard, medium density medium density fiberboard and thin medium density fiberboard.**
  - 2. Energy Thresholds.** The following thresholds are the required energy efficiency standards required for the three types of projects mentioned above.



- a) **Projects, as described above, that must achieve Green Communities certification, must surpass by 15 percent the minimum energy efficiency as described in Chapter 13 of the Oregon Structural Specialty Code.**
  - b) **Projects, as described above, that must achieve Earth Advantage certification, must surpass by 25 percent the minimum energy efficiency as described in Chapter 13 of the Oregon Structural Specialty Code.**
  - c) **Projects, as described above, that must achieve LEED v3 Silver certification, must surpass by 25 percent the minimum energy efficiency as described in Chapter 13 of the Oregon Structural Specialty Code.**
3. **Monitoring.** The development, application, implementation and monitoring of the process used to assure compliance with the requirements listed in this policy will be managed by The Bureau of Housing, consistent with other housing program monitoring processes, and will be incorporated into regulatory agreements to assure accountability.
4. **Reporting Requirements.** Recipients of financial assistance must submit to the Bureau of Housing, environmental performance data on each project, as stipulated by the Bureau. These data include the reductions achieved in energy and water use, amount of stormwater diverted, and the construction waste diverted from a landfill.

#### **D. Phase-In Period**

The Green & Healthy Affordable Housing policy will be sent to the Portland City Council for approval. If approved, a phase-in period for projects less than 60,000 gross square feet in size will commence, during which the policy requirements herein will be implemented on a voluntary basis.

The affordable building standards developed in 2008 by the Oregon Housing and Community Services (OHCS) includes green requirements that must be met to achieve up to ten additional points on the OHCS Consolidated Funding Cycle applications. To be consistent with those requirements, this policy will become mandatory in May 2009.

For projects equal to or greater than 60,000 gross square feet in size, the voluntary phase-in period will end on January 1, 2011. Until approval of this policy, Portland's Greening Affordable Housing Guidelines will remain in effect.



CITY OF PORTLAND  
OFFICE OF SUSTAINABLE DEVELOPMENT  
A BETTER FUTURE. A BETTER NOW.  
DAN SALTZMAN, COMMISSIONER  
SUSAN ANDERSON, DIRECTOR

# City of Portland Proposed High Performance Green Building Policy



Proposal for Public Comment

December 4, 2008

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## I. Background

### City of Portland's green building history

Climate change, rising energy prices and a fragile job market pose serious threats to Portland's ability to thrive, both today and in the future. Buildings are responsible for nearly half of Portland's greenhouse gas emissions, and Portland residents and businesses now spend \$750 million each year to heat, cool and power our buildings. This figure has almost doubled over the past ten years and will likely continue to rise sharply, stretching already tight household and business budgets.

Because buildings last for many decades, today's decisions will affect Portland for the next century or more. Each building represents an opportunity to strengthen Portland's future—or weaken it.

High performance green building presents one of the best solutions to improve environmental performance while strengthening the local economy and keeping buildings affordable in the long term. For more than a decade, the Portland development community has incorporated green building practices as part of a framework for improving energy and water efficiency, stormwater management, indoor environmental quality and materials selection. The resulting buildings are delivering financial savings to their occupants and owners while enhancing workplace productivity and personal health. However, green building is not yet standard practice in Portland. To reach important environmental and economic goals, new policies and actions must be implemented to accelerate the spread of high performance green building in new construction and renovation of existing building stock.

In 2000, the City of Portland Office of Sustainable Development (OSD) launched a program offering green building technical assistance, education and financial incentives to the development community and the general public. In 2001, Portland was one of the first cities in the United States to support the emergence of green buildings by adopting a policy requiring that any new City-owned buildings achieve the U.S. Green Building Council's (USGBC) Leadership in Energy and Environmental Design (LEED) Silver certification. In 2005, this requirement was raised to

LEED Gold, with additional requirements for energy performance, stormwater management, water conservation, ecoroof installation and construction and demolition waste recycling.

Recognizing the many benefits of green building, in 2007, Portland City Council directed OSD to develop policy options to improve the environmental performance of commercial and residential buildings community-wide. The resulting proposed High Performance Green Building Policy also addresses City Council's goal to identify steps to reduce greenhouse gas emissions 80 percent from 1990 levels by 2050.

Similarly, the Portland Development Commission (PDC) adopted a green building policy in 2001 and strengthened it in 2005 to require LEED Silver certification for new construction projects receiving PDC funding such as tax-increment financing or low-interest loans. PDC is currently in the process of revising its Green Affordable Housing policy in conjunction with this community-wide green building policy proposal.

### **Improving building performance is imperative**

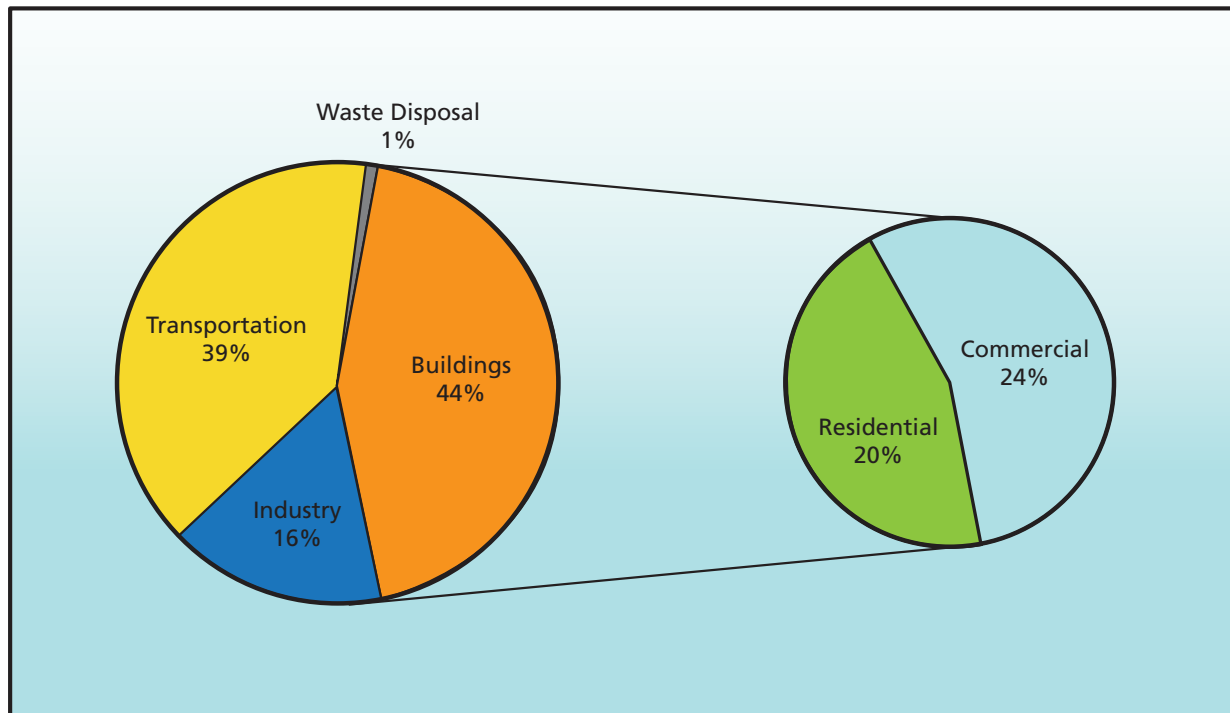
As prices for energy and other natural resources rise, achieving better performance in Portland's buildings and the sites they occupy is critical to keeping Portland's housing and commercial space affordable. Improving energy efficiency helps maintain affordability in several ways:

- An investment in energy-saving measures pays back in reduced utility bills for tenants and homeowners. For example, an Earth Advantage home is at least 15 percent more efficient than minimum state code, saving close to \$400 annually in energy bills for a typical home.
- The added initial cost of new energy-saving measures is partly offset by financial incentives from the Energy Trust of Oregon (ETO) and the Oregon Department of Energy (ODOE).
- Lower energy consumption reduces the impact on budgets from current and future rate increases. This allows more money to be available for other expenditures, keeping money circulating in the local economy, strengthening the business climate and adding local jobs.

High performance green building also reduces greenhouse gas emissions by increasing the energy efficiency of the building envelope, lighting and mechanical systems. In addition, occupants of green buildings typically experience direct health benefits from improvements to indoor environmental quality.

Carbon dioxide, the primary greenhouse gas contributing to climate change, is emitted directly

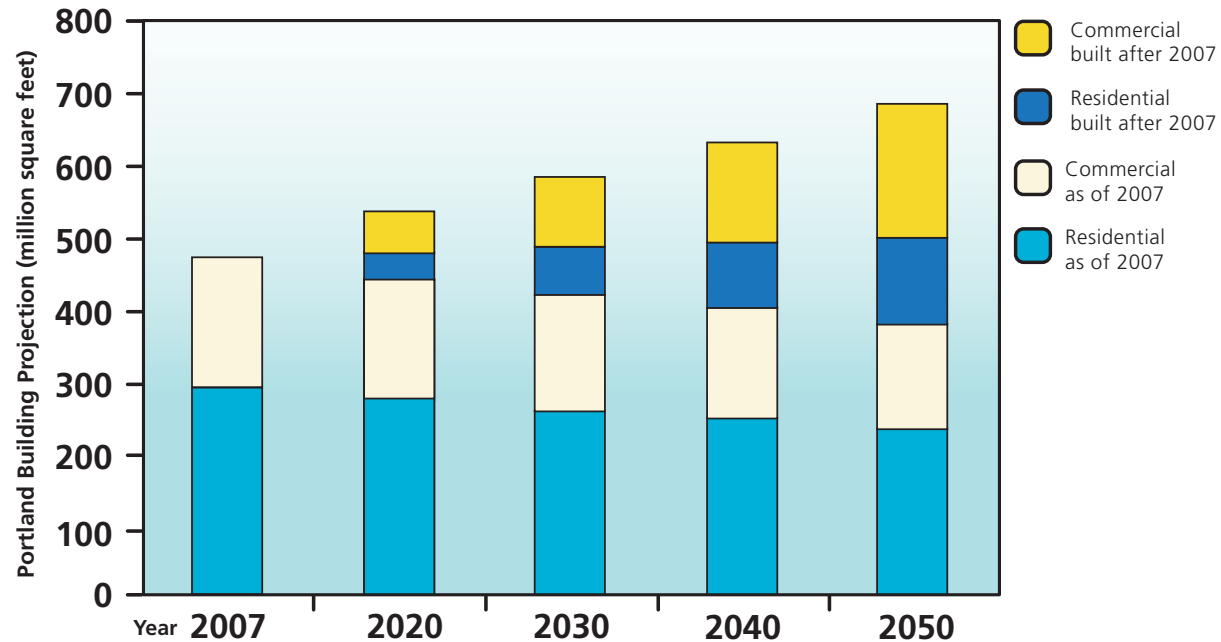
from buildings through natural gas and fuel oil combustion and indirectly through electricity use. Although the Pacific Northwest is home to considerable wind, hydropower and other carbon-free energy resources, well over half of the electricity consumed in Portland is produced by regional coal and natural gas power plants. As shown in Figure 1, nearly half of community-wide carbon dioxide emissions result from electricity, natural gas and fuel oil consumption in buildings, including 20 percent from residential buildings and 24 percent from commercial buildings.



**Figure 1. Sources of carbon dioxide emissions in Multnomah County, 2006.**

Figure 2 shows the existing residential and commercial building stock square footage in Portland along with projected trends through 2050 based on the average growth of each building sector from 2000 through 2006 and an annual demolition rate of 0.5 percent. As demonstrated in Figures 1 and 2, achieving Portland's 2050 climate protection goal will require a green building policy that reduces carbon dioxide emissions from new and existing buildings in both the commercial and residential sectors. These efforts will be complemented by strategies to address transportation, land-use planning and waste reduction, among others.





**Figure 2. Commercial and residential building square footage projections through 2050.**

## II. Policy Development Process

In March 2007, Portland City Council adopted Resolution 36488 directing OSD to develop policy options to improve building environmental performance, including reducing oil and natural gas use and carbon dioxide emissions. Also in spring 2007, the Development Review Advisory Committee (DRAC) formed a subcommittee to make recommendations for expanding sustainable development practices in Portland, and the Portland City Council passed a resolution directing the Portland Development Commission (PDC) to update the City of Portland's affordable housing green building threshold and voluntary guidelines. Members of DRAC and PDC participated in OSD's policy development process. Likewise, OSD staff participated in DRAC and PDC green building processes.

In November 2007, Portland City Commissioner Dan Saltzman proposed a preliminary framework for the High Performance Green Building Policy outlining options for new construction and existing buildings in the commercial and residential sectors. In January 2008, Commissioner Saltzman and Commissioner Randy Leonard invited community members to learn about two potential policy paths to advance green building in Portland. First, the Bureau of Development Services (BDS) announced a Technical Advisory Group (TAG) to explore a possible local amendment to the state building code that would incorporate green building practices.

The TAG continues to meet and will make recommendations that the City Council can propose to the State Building Codes Division for consideration, probably in early 2009. Second, OSD announced a series of stakeholder meetings for the continued development of the green building policy and invited participation from the public. From February through June 2008, OSD convened nine stakeholder committee meetings to review and explore draft options identified by the policy framework. These drafts were revised to create the current proposed High Performance Green Building Policy.

### III. Policy Overview

The proposed High Performance Green Building Policy seeks to accomplish the following goals for buildings and the sites they occupy in the city of Portland:

- Reduce greenhouse gas emissions that cause climate change.
- Maximize energy efficiency and cost savings.
- Keep housing and commercial buildings affordable over time.
- Decrease consumption of potable water, especially during summer months.
- Increase on-site stormwater management.
- Reduce waste during construction and operation.
- Improve indoor environmental quality, occupant health and productivity.
- Increase the number of local living-wage jobs.

The proposed policy provides incentives and technical assistance for projects that incorporate advanced green building measures as summarized in Table 1 and described below:

- 1) For new commercial and multifamily construction projects, the policy proposes a green building “feebate”—a market-based instrument that combines a fee for conventional construction, a waiver option for moderate green improvements and a reward for high performance green building projects.
- 2) For new single-family residential construction, the policy proposes a performance target for a percentage of new homes that are built to green building standards. If the target is met, no new regulations will take effect; if the target is not met, a feebate similar to that for new commercial construction will come into effect.
- 3) For existing commercial buildings, the policy proposes disclosure of building performance in the areas of energy usage, water usage and stormwater management. The policy also includes incentives to improve environmental performance. The building performance measures would identify buildings that have the greatest potential to improve performance and could help prospective buyers and tenants make informed decisions.

4) Disclosure of building performance measures was also considered for existing single-family residential buildings, but the stakeholder meetings highlighted the need to develop much better financing options for homeowners than are currently available. As a result, no requirements are proposed for existing homes at this time, and instead OSD is exploring options including the development of a large-scale fund to accelerate green building upgrades to existing buildings.

	<b>Commercial &amp; Multifamily</b>	<b>Single-Family Residential</b>
<b>New</b>	<ul style="list-style-type: none"> <li>• Feebate</li> </ul>	<ul style="list-style-type: none"> <li>• Performance target</li> <li>• Feebate if not met</li> </ul>
<b>Existing</b>	<ul style="list-style-type: none"> <li>• Disclose building performance score</li> </ul>	<ul style="list-style-type: none"> <li>• Exploring financing and performance score</li> </ul>

**Table 1. High Performance Green Building Policy overview.**

## IV. New Commercial Construction Feebate

The proposed commercial green building feebate will apply to new construction of multifamily buildings greater than or equal to 5,000 gross square feet and commercial buildings greater than or equal to 20,000 gross square feet. Specific building types and permit occupancy classifications (defined by the 2007 Oregon Structural Specialty Code) covered by the feebate are as follows:

- Indoor public and private assembly buildings (A1, A2, A3).
- Hospitals, group homes and assisted living facilities (I1, I2, I3, I4, I5).
- Hotels and motels (R1).
- Multifamily residential homes (R1, R2, R4).
- Offices and businesses (B).
- Retail and wholesale stores (M).
- Schools and day-care facilities (E).

*A “commercial” building designation is determined by BDS at the time of permit review and includes multifamily residences.*

*Industrial buildings and warehouses are not covered by the feebate since these building types are generally unoccupied or consume resources primarily through manufacturing processes rather than building operation.*

The feebate will also apply to “major remodels,” defined as permitted alterations or additions in which:

- The project Permit Valuation of Work exceeds \$250,000,

AND at least one of the following is true:

- At the time of application, the Permit Valuation of Work is greater than or equal to the Real Market Value of the property as determined by the County Tax Assessor;  
-or-
- A Change of Occupancy affects more than one-third of the building gross square footage;  
-or-
- A conversion of more than 5,000 gross square feet from unheated to heated space;  
-or-
- An addition of building gross square footage greater than or equal to the gross square footage of the existing building.

The proposed green building feebate for new commercial construction will be phased in according to the following time frame:

- Projects smaller than 50,000 gross square feet that have permits submitted after July 1, 2010.
- Projects greater than or equal to 50,000 gross square feet that have permits submitted after January 1, 2011.

Projects exempted from the feebate include new construction or additions that are less than 5,000 gross square feet for multifamily residences or 20,000 gross square feet for commercial buildings, initial tenant improvements in newly constructed buildings and permits that involve only site improvements. Projects will have the opportunity to appeal the policy requirements based on building occupancy or unusual circumstances.



The green building feebate is intended to increase building environmental performance while complementing existing financial incentives offered by ETO and ODOE for energy-saving measures and sustainable building. The proposed feebate would present developers of new commercial and multifamily buildings with three green building incentive options as displayed in Figure 3 and described as follows:

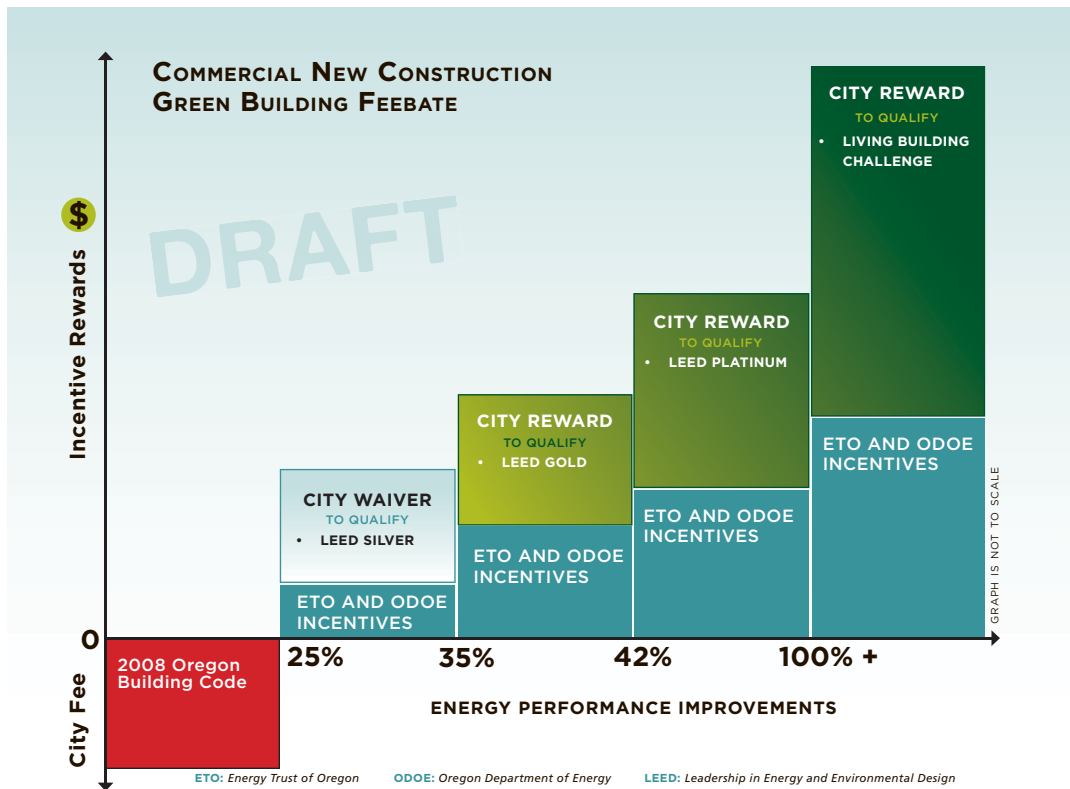
- 1) Reward. Receive a one-time reward payment from the City of Portland for projects that achieve a high performance green building standard and significantly improve energy performance beyond the current minimum Oregon requirements (Chapter 13 of the Oregon Structural Specialty Code). Proposed green building standards are shown on Tables 2 and 3. The reward is paid to the building owner by the City of Portland upon receipt of third-party verification (such as a copy of the USGBC Rating Certificate and Final LEED Review). The amount of the reward varies based on the level of environmental performance and the gross square footage of the building. Buildings of any size are eligible for rewards. Affordable housing projects are eligible to receive the first level of reward payment by achieving what otherwise is defined as the “waiver” level of performance. To receive higher reward levels, affordable housing projects will need to reach the same minimum requirements as other projects.

-or-

- 2) Waiver. Receive a fee waiver for projects that build to a green building standard and improve energy performance beyond the minimum Oregon code. Proposed green building standards are shown on Tables 2 and 3. To qualify for the waiver, project developers must document registration for the green building standard (such as a LEED Registration Number and Scorecard) when applying for a building permit followed by submitting third-party verification within one year after receiving a Certificate of Occupancy from BDS.

-or-

- 3) Fee. Pay a one-time fee to mitigate the greenhouse gas emissions and other environmental impacts for projects that are built to the minimum Oregon code. The fee will be based on the gross square footage of the building.



**Figure 3. Proposed commercial new construction green building feebate.**

The feebate is based on third-party certification programs established by Earth Advantage and the U.S. Green Building Council. Projects pursuing LEED certification must also achieve specific minimum point thresholds for energy and water efficiency credits:

- Design building envelope, lighting and mechanical systems to optimize energy performance (LEED EA1).
- Install on-site renewable energy (LEED EA2).
- Reduce landscaping irrigation (LEED WE1).
- Reduce building water use (LEED WE3).

Specific green building requirements are described in Table 2 for multifamily residential buildings and Table 3 for all other commercial building types covered by the feebate.

Applicable green building standards, energy efficiency thresholds and minimum environmental performance requirements will be reevaluated every three years in accordance with building code cycles to ensure that the feebate continuously reaches beyond the Oregon code.

PDC is proposing that multifamily rental housing projects that receive PDC loans and/or grants

in the amount of \$500,000 or more and which are a minimum of 50,000 square feet in size must meet the “waiver” level of performance. In addition, PDC-funded affordable projects must meet the following requirements to protect the health of vulnerable populations and other building occupants:

- a) Composite wood products shall not contain synthetic urea formaldehyde. These materials include hardwood plywood, particleboard, medium density fiberboard and thin medium density fiberboard.
- b) Polyvinyl chloride flooring shall not be installed.

Feebate Option	Green Building Standards <sup>1</sup>	Minimum Requirements	Feebate <sup>2</sup>
Reward <sup>3</sup>	Living Building Challenge	Net-zero energy and water documentation (1 year)	\$2.58 – \$5.15 per sf
	LEED New Construction 2.2 Or, for projects <50,000 square feet, Earth Advantage <sup>4</sup>	<b>Platinum certification, PLUS:</b> EAc1 + EAc2: 10 points WEc1 + WEc3: 4 points	\$1.03 – \$2.06 per sf
	LEED New Construction 2.2 Or, for projects <50,000 square feet, Earth Advantage <sup>4</sup>	<b>Gold certification, PLUS:</b> EAc1 + EAc2: 8 points WEc1 + WEc3: 3 points	\$0.51 – \$1.03 per sf
Waiver	LEED New Construction 2.2 Or, for projects <50,000 square feet, Earth Advantage <sup>4</sup>	<b>Silver certification, PLUS:</b> EAc1 + EAc2: 5 points WEc1 + WEc3: 2 points	Not Applicable
Fee	None		(-) \$0.51 – \$1.03 per sf

**Table 2. Proposed multifamily residential new construction green building standards and feebate specifications.**

<sup>1</sup> LEED rating systems are currently in the process of being updated by the U.S. Green Building Council. Equivalent LEED 2009 points will be determined after the next version of LEED is released.

<sup>2</sup> A feebate range is provided here for comment; however, the level of the feebate will be established at a specific amount. The possible range presented here is based on average values for energy use in commercial buildings multiplied by measure life multiplied by dollars per ton of carbon. The low end of the range assumes a 15-year operational period for the building with a value of \$12 per metric ton of carbon dioxide. Since estimates vary considerably for measure life and for the appropriate valuation of carbon, the high end can be viewed as representing a measure life of 30 years or a carbon price of \$24 per metric ton or some combination of the two.

<sup>3</sup> Affordable housing projects will also qualify for the reward if they achieve the minimum feebate waiver requirements. However, to receive higher reward levels, affordable housing projects will need to reach the same minimum requirements as other projects.

<sup>4</sup> The Earth Advantage option provides a prescriptive alternate path to LEED certification and can be used to meet the green standards for multifamily residential projects less than 50,000 square feet.

Feebate Option	Green Building Standards <sup>5</sup>	Minimum Requirements	Feebate <sup>6</sup>
Reward	Living Building Challenge	Net-zero energy and water documentation (1 year)	\$8.65 – \$17.30 per sf
	LEED New Construction 2.2 Core and Shell 2.0 Schools Retail	<b>Platinum certification, PLUS:</b> EAc1 + EAc2 : 10 points WEc1 + WEc3: 4 points	\$3.46 – \$6.92 per sf
	LEED New Construction 2.2 Core and Shell 2.0 Schools Retail	<b>Gold certification, PLUS:</b> EAc1 + EAc2: 8 points WEc1 + WEc3: 3 points	\$1.73 – \$3.46 per sf
Waiver	LEED New Construction 2.2 Core and Shell 2.0 Schools Retail	<b>Silver certification, PLUS:</b> EAc1 + EAc2: 5 points WEc1 + WEc3: 2 points	Not Applicable
Fee	None		(-) \$1.73 – \$3.46 per sf

**Table 3. Proposed commercial new construction green building standards and feebate specifications.**

<sup>5</sup> LEED rating systems are currently in the process of being updated by the U.S. Green Building Council. Equivalent LEED 2009 points will be determined after the next version of LEED is released.

<sup>6</sup> A feebate range is provided for comment; however, the level of the feebate will be established at a specific amount. The possible range presented here is based on average values for energy use in commercial buildings multiplied by measure life multiplied by dollars per ton of carbon. The low end of the range presented here assumes a 15-year operational period for the building with a value of \$12 per metric ton of carbon dioxide. Since estimates vary considerably for measure life and for the appropriate valuation of carbon, the high end can be viewed as representing a measure life of 30 years or a carbon price of \$24 per metric ton or some combination of the two.

<sup>7</sup> LEED NC 2.2 now accepts prescriptive options detailed by Advanced Buildings Core Performance as an alternate path to building simulation for up to five EAc1 points. This prescriptive path will also be acceptable for LEED NC 2009 certified projects less than 50,000 gross square feet.



## V. New Residential Construction Feebate

*A "residential" building designation is determined by BDS at the time of permit review and includes single-family detached homes, duplexes and rowhouses.*

The proposed green building policy will accelerate the transition to green building as standard practice. Many area builders have expressed their commitment to building better-performing homes, and in the Portland home construction industry, two certification programs have gained traction as markers of exemplary environmental performance, Earth Advantage (EA) and LEED for Homes. With this policy, the City will work with area builders to continue to increase the prevalence of certified green homes and to achieve performance targets for the percentage of new homes built that achieve these standards. The proposed performance targets are as follows:

- In 2009, 20 percent of new homes certified as EA or LEED for Homes.
- In 2010, 30 percent of new homes certified as EA or LEED for Homes.
- In 2011, 40 percent of new homes certified as EA or LEED for Homes.

The City will annually monitor the percentage of EA or LEED for Homes projects to determine whether the policy's performance targets are achieved. Verification of performance targets will be based on all new residential buildings greater than or equal to 1,200 square feet with an R3 permit occupancy classification (defined by the 2007 Oregon Structural Specialty Code).

If market share performance targets are not achieved during any given year of the policy, a residential green building feebate will become effective six months later that will apply to new home construction projects greater than or equal to 1,200 square feet. New construction projects smaller than 1,200 square feet and additions or alterations to existing homes will be exempt from the green building fee but are eligible for reward payments. Projects will have the opportunity to appeal the policy requirements based on building occupancy or unusual circumstances.

The residential green building feebate is intended to increase building environmental performance while complementing existing financial incentives offered by ETO and ODOE. Should the feebate take effect, builders of new homes would have three options as displayed in Figure 4 and described as follows:

- 1) Reward. Receive a one-time reward payment from the City of Portland for projects that build to a high performance green building standard with third-party verification and significantly improve energy performance beyond the minimum Oregon requirements (Chapter 13 of the Oregon Structural Specialty Code), as described in Table 4. The

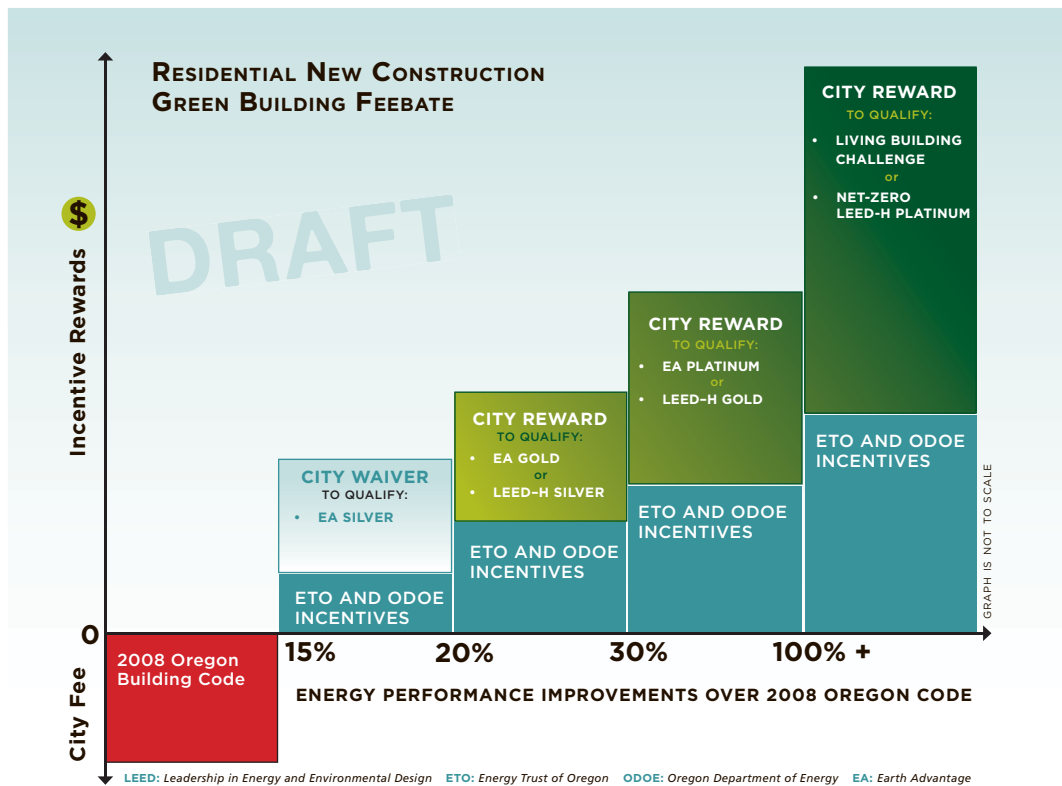
amount of the reward varies based on the level of environmental performance and is a fixed dollar figure per home (i.e., it does not vary with the size of the home). A reward is paid to the homeowner by the City of Portland upon receipt of third-party verification (such as a copy of the USGBC Rating Certificate and Final LEED Review). Homes smaller than 1,200 square feet are also eligible for rewards.

-or-

- 2) Waiver. Receive a fee waiver for projects that build to a green building standard and improve energy performance beyond the minimum Oregon code, as described in Table 3. To qualify for the waiver, home builders must document registration for the green building standard (such as an EA Points Worksheet or LEED Scorecard) when applying for a building permit followed by submitting third-party verification within one year after receiving a Certificate of Occupancy from BDS.

-or-

- 3) Fee. Pay a one-time fee to mitigate the environmental impacts for projects that build to the minimum Oregon code. The fee will vary based on the square footage of the home and only apply to new construction greater than or equal to 1,200 square feet.



**Figure 4. Proposed residential new construction green building feebate.**

In addition to achieving third-party certification, projects must meet minimum energy performance requirements as shown in Table 4, such as a minimum Home Energy Rating System (HERS) score, NW Energy Star Homes certification, or Oregon High Performance Homes (HPH) Business Energy Tax Credit qualification.

To enable progressive green building market transformation, the residential performance targets, applicable green building standards, feebate thresholds and minimum environmental performance requirements will be evaluated and reset every three years in accordance with building code cycles.

Feebate Option	Green Building Standards	Minimum Requirements	Feebate <sup>8</sup>
Reward <sup>9</sup>	LEED for Homes Platinum, or Living Building Challenge	HERS 0, or Net-zero energy documentation (1 year)	\$10,000 per home
	EA Platinum, or LEED for Homes Gold	HERS 60, or Oregon HPH	\$2,570 – 5,140 per home
	EA Gold, or LEED for Homes Silver	HERS 70	\$1,285 – 2,570 per home
Waiver	EA Silver	HERS 75, or NW Energy Star Homes	Not Applicable
Fee	None		(-) \$0.51 – 1.03 per sf

**Table 4. Proposed residential new construction green building feebate specifications.**

<sup>8</sup> A feebate range is provided here for comment; however, the level of the feebate will be established at a specific amount. The possible range presented here is based on average values for energy use in residential buildings multiplied by measure life multiplied by dollars per ton of carbon. The low end of the fee range presented here assumes a 15-year operational period for the building with a value of \$12 per metric ton of carbon dioxide. Since estimates vary considerably for measure life and for the appropriate valuation of carbon, the high end can be viewed as representing a measure life of 30 years or a carbon price of \$24 per metric ton or some combination of the two.

<sup>9</sup> The reward for qualifying homes will be a flat amount based on a typical home size of 2,500 square feet.

## VI. New Construction Green Building Funds

Fees collected by the City of Portland through the implementation of the new construction portions of the policy would create separate self-sustaining, revenue-neutral commercial and residential green building funds that will be used to pay for feebate rewards, technical assistance, project recognition and green building education programs. The green building funds may also support green affordable housing grants and additional financial or technical assistance with the permitting processes related to green building. Green building fees would be dedicated to programs to improve environmental performance of buildings and reduce greenhouse gas emissions. Allocation of the commercial and residential green building funds would be determined with oversight from a City-appointed citizen advisory board (either existing or newly created).

## VII. Existing Commercial Building Performance Measures

*A "commercial" building designation is determined by Bureau of Planning zoning classifications and BDS occupancy classifications including multifamily residences.*

*Industrial buildings are not required to disclose building performance measures since these building types are generally unoccupied or consume resources primarily through manufacturing processes rather than building operation. However, disclosure of on-site stormwater management still applies to industrial buildings.*

To encourage green renovations and on-site stormwater management for existing commercial and multifamily buildings, the policy proposes to require disclosure of environmental performance measures using the U.S. Environmental Protection Agency (EPA) Energy Star Portfolio Manager tool. As part of building performance disclosure, owners or managers of commercial buildings greater than or equal to 20,000 gross square feet must report:

- 1) Building Performance. Participate in the EPA Energy Star Portfolio Manager program, including reporting building characteristics, energy use during the previous 12 months, water consumption levels and indoor environmental quality. If the building is occupied by tenants without accessible energy and water use consumption data (such as triple net leases), the building owner or manager must provide formal requests for utility bill summaries with guidance from OSD. Accuracy of the information provided about the building must be verified by a professional engineer in accordance with EPA requirements for Energy Star certification.



- 2) Stormwater Management. Disclose whether the building qualifies for the City of Portland's Clean River Rewards (CRR) stormwater utility discount program and indicate the extent of stormwater managed on-site. With CRR, Portland ratepayers managing stormwater from a building and site can receive up to a 100% discount for the on-site stormwater management charges, depending on the extent that stormwater is managed on site.

Building performance measures, including Energy Star ratings (as applicable), energy use intensities, carbon dioxide emissions, water consumption rates and other relevant metrics, will be disclosed to OSD through the submittal of an EPA Energy Star Portfolio Manager Statement of Energy Performance or online reporting ([http://www.energystar.gov/index.cfm?c=evaluate\\_performance.bus\\_portfoliomanager](http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager)). Building owners or managers may choose to voluntarily disclose building performance measures through a public online resource, such as Portland Maps. Public disclosure of building performance could help prospective buyers and tenants make informed decisions.

An Energy Star rating provides a climate-normalized ranking of building energy performance, from 1 to 100, based on a U.S. Department of Energy survey of nationwide commercial building stock. The following building types are currently eligible for an Energy Star rating:

- Bank/Financial Institutions.
- Hospitals.
- Hotels and Motels.
- K-12 Schools.
- Medical Offices.
- Offices.
- Residential Halls/Dormitories.
- Retail Stores.
- Supermarkets.
- Warehouses.

In addition to the EPA Energy Star Portfolio Manager building performance measures, all qualifying buildings that are not registered for the CRR program must fill out and submit the appropriate program form to BES. If a building site does not qualify for the CRR program, this information will also be disclosed.

Disclosure of EPA Energy Star building performance measures and CRR reporting will be phased in as shown in Table 5. Building performance measures must be updated at least once every three years, including third-party verification. All new construction projects covered by the proposed feebate must also participate in disclosure of environmental performance measures within three years after receiving a Certificate of Occupancy. Building owners or managers will

have the opportunity to appeal the policy requirements based on unusual circumstances. EPA Energy Star ratings can identify buildings that have the highest potential for improvement. Owners or managers of buildings eligible for Energy Star ratings that do not achieve a minimum rating of 30 will be contacted by OSD to identify strategies, financing options and incentives to reduce energy use within three years as specified in Table 5. Buildings that do not achieve either a rating of at least 30 or a 15 percent reduction in energy use within three years will be subject to a fine assessed at \$0.01/gross square foot for every point below the EPA Energy Star rating threshold. A fine may be assessed once every three years.

A building's Energy Star rating will be assumed to be zero if disclosure requests for building performance measures are not received by OSD, resulting in a fine of \$0.30/gross square foot. Building owners or managers will have the opportunity to appeal the fine with OSD based on unusual circumstances. To minimize the occurrence of fines, OSD will provide technical assistance and explore energy efficiency financing options including the development of a large-scale fund to accelerate green building upgrades to existing buildings. Any fines collected by the City of Portland will be restricted to funding technical assistance and outreach programs for existing buildings.

Building Size (gross square feet)	Disclosure Date	Performance Improvement Date
Greater than 100,000	January 1, 2011	January 1, 2014
Between 50,000 and 100,000	January 1, 2012	January 1, 2015
Greater than or equal to 20,000 and less than 50,000	January 1, 2013	January 1, 2016

**Table 5. Proposed timeline for disclosure of environmental performance measures.**

Buildings that achieve a green building third-party certification, including EPA Energy Star, Green Globes, LEED Existing Buildings Operation and Maintenance, or a BetterBricks Office Energy Showdown award will be eligible for project recognition on the OSD Web site. In addition, starting in 2011, OSD will annually recognize and award existing buildings and building operators demonstrating the greatest environmental performance and improvement in efficiency, and achieving at least 75 percent through the CRR stormwater discount incentive program, or an increase in the CRR discount. These buildings will also receive recognition on the BES Web site.

## VIII. Institutions with Approved Master Plans

Institutions with City-approved multi-year master plans may elect to achieve portfolio-wide performance improvements to new and existing buildings that meet the performance objectives of the policy in lieu of the proposed green building feebate for new construction projects. These performance commitments will be integrated into master plans and considered as part of the routine master plan review process.

## IX. Existing Residential

The proposed policy does not include new requirements for existing residential buildings at this time. Improving the environmental performance of existing homes, however, is essential to achieving the City's climate protection, energy and economic goals. To address this, OSD is currently developing financing options that make energy and environmental upgrades easy and affordable to homeowners. Financing options will consider the needs of low-income homeowners to help mitigate the effects of future energy cost increases.

OSD is also evaluating emerging models from other cities, including Berkeley, California, the Cambridge Energy Alliance from Cambridge, Massachusetts, and the Palm Desert Energy Independence Program. Legislation may be introduced in the 2009 Oregon legislature to enable local or state government to establish funding for large-scale energy retrofits, and the City will continue to partner with others to identify the most promising options.

Existing homes are the largest category of residential energy use and greenhouse gas emissions. Conservation measures are needed to reduce emissions, save on energy costs and offset future cost increases for electricity, natural gas and fuel oil. An effective policy will address upgrading houses for better performance and empowering homeowners to effectively manage energy use.

In order to upgrade energy performance, homes require individual evaluation to identify performance improvement measures appropriate to its particular needs. This strategy depends on availability of a commonly accepted evaluation method. Currently, EA and ETO are piloting an Energy Performance Score (EPS) program. The EPS is expected to provide a simple score that summarizes a home's current and potential performance, and it will likely also produce a set of recommendations for cost-effective upgrade measures. OSD will track the progress of the EPS to determine its rate of acceptance in the market and the number of homes that are upgraded. This information will guide the City in determining whether an incentive or mandate to require an EPS should be considered to accelerate home improvements.

OSD will report to City Council by January 2010 with recommendations for further action.

## **X. Green Building Technical Assistance and Education**

To support implementation of the High Performance Green Building Policy, the City will expand existing green building technical assistance programs and support new programs including:

1. Green building specialists in the Development Services Center to assist permit applicants in meeting the policy goals.
2. Training on LEED and green building design, engineering and construction.
3. Workshops to assist owners and managers of existing buildings with Energy Star Portfolio Manager reporting.
4. BES Clean River Rewards program assistance in registering for the stormwater discount incentive and ideas for possible increase in the percent discount for on-site stormwater managed.

OSD will also work with buyers, tenants, developers, builders, financial and real estate professionals, trade unions, appraisers, other building industry professionals and City specialists to significantly expand awareness of project requirements, green building benefits, and continuous management of building environmental performance.

## **XI. Monitoring, Evaluation and Adaptive Management**

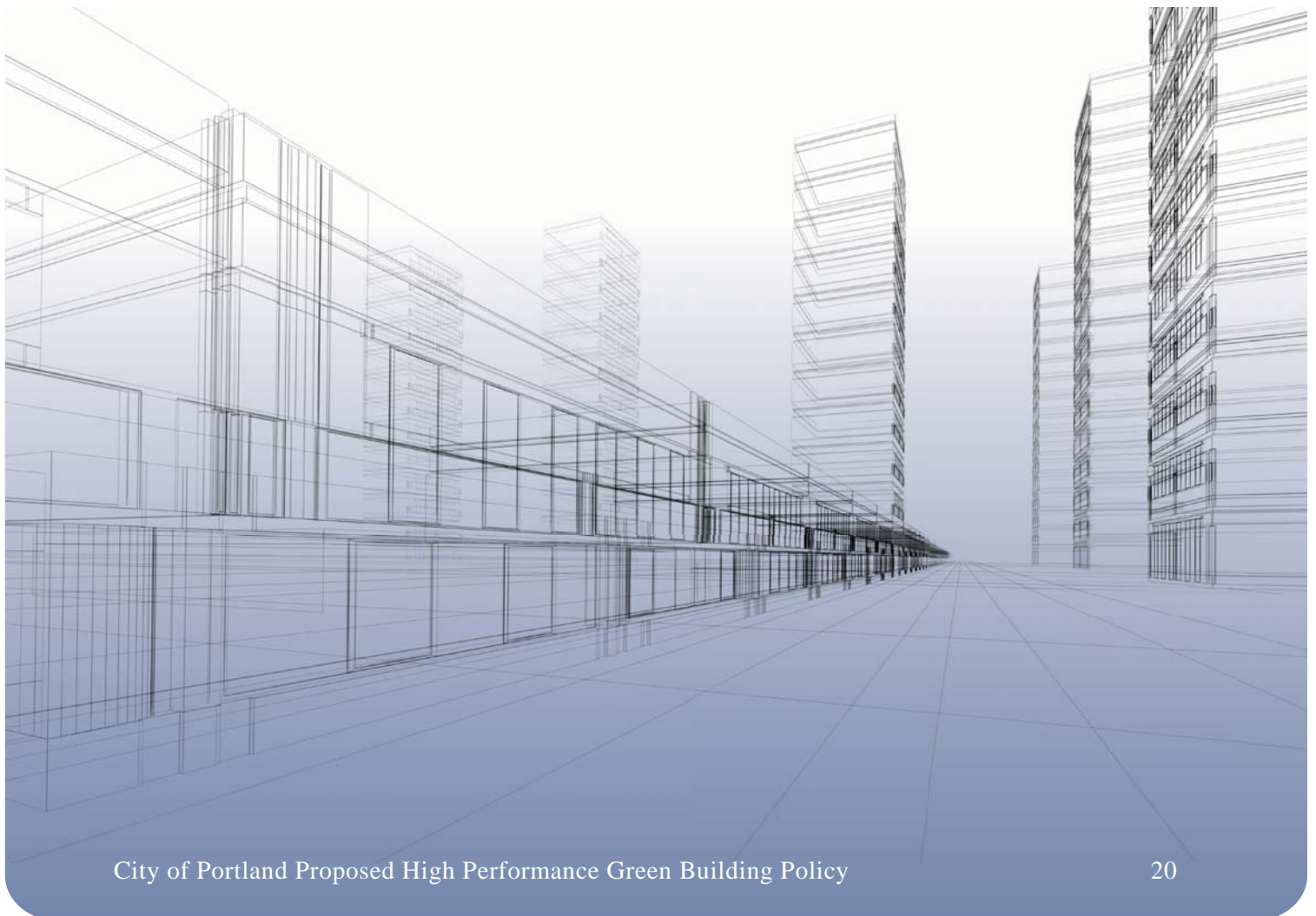
OSD will establish baselines and performance parameters to measure annual progress toward the City's green building goals, including targets set by the City's climate protection strategy and the Architecture 2030 Challenge that requires all new construction to be "carbon-neutral" by 2030. Progress toward goals will be monitored and annual performance reports will be issued, including recommendations for improvement and broadening community awareness. In accordance with building code cycles, specific policy parameters and green building performance criteria will be updated through an administrative process every three years.



## XII. Public Participation and Next Steps

We invite you to participate in the green building policy process by reviewing the proposed High Performance Green Building Policy and submitting your comments online at **[www.portlandonline.com/osd/gbpolicy](http://www.portlandonline.com/osd/gbpolicy)**. Comments received by January 20, 2009 will be considered in the next version of this policy in preparation for City Council consideration.

By engaging members of the public and stakeholders with diverse interests, OSD seeks to craft a fair, effective, community-wide green building policy. Upon adoption of the policy, City staff will conduct an administrative rules process that will include specific submittal requirements for the new construction feebate and existing building performance disclosure.



# **PDC**

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## **PORTLAND DEVELOPMENT COMMISSION**

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### **Green Building Policy Program Guidelines**

**Adopted by the PDC Board of Commissioners**

**June 22, 2005**

**Resolution #6262**



## **Green Building Policy**

***To support the intent and application of the Green Building Policy of the City through advocating and incorporating sustainable and green building practices in all projects to the maximum extent practicable, and as a condition of receiving financial assistance from the Commission as applicable.***

.....Adopted by the PDC Board of Commissioners June 22, 2005 - Resolution #6262



## Green Building Program Guidelines

### A. Description

The PDC Green Building Program ("Program") requires developers receiving financial assistance from the Commission — and direct Commission funded construction projects — to integrate green building practices into construction projects and meet established [Leadership in Energy and Environmental Design](#) ("LEED") standards.

### B. Authority

1. Resolution Number 36310 adopted by the Portland City Council on April 27, 2005, amending the Green Building Policy adopted by the Portland City Council on January 10, 2001, requires the Portland Development Commission to enforce certain development standards when providing financial assistance to various projects.
  - a) These Program Guidelines ("Guidelines") are intended to implement the responsibilities assigned to the Commission by the City Council in these actions.
  - b) Definitions contained in the City Green Building Policy (BCP-ENB-9.01) are hereby included by reference in these Guidelines.
2. The PDC Board of Commissioners by adoption of Resolution #6262 on June 22, 2005 adopted these Guidelines.

### C. Development Projects Subject to These Guidelines

1. A project receiving PDC financial assistance in an amount:
  - a.  $\geq$  10% of the total project cost; **AND**
  - b.  $\geq$  \$300,000

**NOTE:** "PDC financial assistance" shall include any:

- Loan or grant of funds directly provided by PDC.
  - Indirect financial benefit provided by PDC as the result of writing down the value of land.
2. These Guidelines further apply only to the construction or rehabilitation of a building or structure that is  $\geq$  10,000 square feet in total area **and** is part of a project meeting the criteria in Section C-1.

### D. Types of Construction Within a Qualifying Project Subject to These Guidelines

1. **New Construction** — new buildings or structures for the following uses:
  - a. Commercial / Mixed-Use
  - b. Residential



c. City-Owned Buildings

**2. Rehabilitation Construction** – an existing building or structure that is modified, renovated or remodeled; including tenant improvements, and intended for the following uses:

- a. Commercial / Mixed-Use
- b. Residential
- c. City-Owned Buildings

**E. Individual Project Requirements**

<b>New Construction</b>	
<b>Development Type</b>	<b>Green Building Standard Required</b>
<ul style="list-style-type: none"> <li>• Commercial / Mixed-Use</li> </ul>	LEED NC (“New Construction”) Silver Certification
<ul style="list-style-type: none"> <li>• Residential</li> </ul>	Greening Portland’s Affordable Housing (ALL)
< 5 stories of the structure	Earth Advantage Green Certification
= 5 stories	Earth Advantage Green or LEED NC Silver based on the particular configuration of entire building
> 5 stories	LEED NC Silver Certification
<ul style="list-style-type: none"> <li>• City-Owned Buildings</li> </ul>	<ul style="list-style-type: none"> <li>• LEED NC Gold Certification</li> <li>• “Ecoroof” or “Energy Star” approved roofing material</li> <li>• Operations &amp; maintenance according to guidelines established by the Bureau of General Services</li> </ul>

<b>Rehabilitation</b>	
<b>Development Type</b>	<b>Green Building Standard Required</b>
<ul style="list-style-type: none"> <li>• Commercial / Mixed-Use</li> </ul>	
<ul style="list-style-type: none"> <li>○ Full-building</li> </ul>	LEED NC Silver Certification
<ul style="list-style-type: none"> <li>○ Partial-building</li> <li>○ Tenant improvements</li> </ul>	LEED CI (“Commercial Interiors”) Silver <b>and/or</b> G-Rated Tenant Improvement Guide Certification
<ul style="list-style-type: none"> <li>• Residential</li> </ul>	Greening Portland’s Affordable Housing (ALL)
< 5 stories of the structure	Earth Advantage Green Certification
= 5 stories	Earth Advantage Green or LEED NC Silver based on the particular configuration of entire building
> 5 stories	LEED NC Silver Certification
<ul style="list-style-type: none"> <li>• City-Owned Buildings</li> </ul>	<ul style="list-style-type: none"> <li>• LEED Commercial Interiors (CI) Silver Certification; OR</li> <li>• G/Rated Tenant Improvement Guide Certification</li> </ul>

**F. Good Faith Deposit**

In all financial assistance agreements where compliance with these Guidelines is required and not otherwise exempted, the developer will be required to provide PDC

with a deposit in the amount of \$10,000 and in the form of either a cashier's check or promissory note, as determined by the project manager, as security that the developer will make a good faith effort to comply with these Guidelines ("Good Faith Deposit").

1. The Good Faith Deposit will be returned if and when PDC has determined the developer has "complied" with these Guidelines.
2. The Good Faith Deposit will be forfeited to PDC if the developer is determined to be "non-compliant" with these Guidelines

### **G. Compliance**

1. **Progress Reports.** According to a schedule agreed to by both parties in the financial assistance agreement, the developer shall submit an up-dated *LEED Checklist* and any additional supporting documentation to PDC indicating:
  - a. The progress towards meeting requirements of these Guidelines.
  - b. The likelihood that requirements will be met or exceeded.
  - c. Any issues or circumstances that may prevent the developer from meeting requirements.
2. **Final Report.** Within five (5) business days of receiving notification of LEED certification approval or denial, the developer shall notify and submit to PDC evidence of
  - a. LEED Certification approval; **OR**
  - b. LEED Certification denial.
3. **Determination**
  - a. If the developer's required certification is approved, the developer will be deemed to have "complied" with these Guidelines and the Good Faith Deposit will be returned.
  - b. If the developer's required certification is denied, the developer will be deemed to be "non-compliant" with these Guidelines.

### **H. Non-Compliance Request for Waiver**

If a developer's request for certification is denied by LEED, the developer may, within 10 (ten) business days of receiving such notice, submit to PDC a "Request for Waiver" from required compliance with these Guidelines based on the "good faith effort" made by the developer to comply.

1. A *Request for Waiver* must contain:
  - a. The following documentation appropriate to the type of construction.
    - i. **Commercial:** Final LEED certification application, documentation and response from U.S. Green Building Council.
    - ii. **Residential:** Final LEED certification application, documentation and response from certification agency(s).

- b. An explanation of the efforts and accomplishments made by the developer to achieve compliance with these Guidelines.
  - c. An explanation of the practical or economic infeasibility of implementing certain green building design or construction techniques that if implemented would otherwise have likely resulted in certification.
  - d. Any other supporting documentation or information the developer wishes to submit.
2. Within 30 (thirty) days of receiving the *Request for Waiver*, the PDC Executive Director shall make a determination as to whether a Waiver should be approved or denied based on the good faith effort the developer made to comply with these Guidelines.

In order to establish the developer's good faith efforts, the documentation and information submitted by the developer with the *Request for Waiver*, and any other information obtained by PDC from the developer during design and construction, must establish that the developer:

- a. Complied with the LEED certification application process;
  - b. Submitted timely progress reports to PDC;
  - c. Undertook reasonable, appropriate and on-going efforts to obtain certification; **and**
  - d. That compliance would otherwise have been obtained but for the practical or economic infeasibility of implementing certain green building design or construction techniques.
3. If a *Request for Waiver* is approved by the PDC Executive Director, the developer will be relieved from meeting the requirements of these Guidelines, and the Good Faith Deposit returned to the developer.
4. If a *Request for Waiver* is denied by the PDC Executive Director, the developer will be deemed to have not made a "good faith effort" to meet requirements of these Guidelines and shall forfeit the Good Faith Deposit to PDC

## **I. Exemptions**

1. **Programs.** The following programs are categorically exempt from these guidelines due to the generally small amount of financial assistance provided by the Commission.
  - a) Storefront Improvement Program
  - b) Neighborhood Housing Programwill be exempt from meeting Green Building Standards otherwise required in Section E of these Guidelines, except Greening Portland's Affordable Housing
2. **Affordable Housing Project.** A project otherwise required to follow these Guidelines, but where at least 51% of housing units are either:
  - a) rental housing affordable to households at 60% area Median Family Income and have a regulatory agreement with PDC; and/or

b) ownership housing in which sales prices are no greater than 95% of the Multnomah County average sales price **and** homebuyer incomes are no greater than 100% of the area median income.

c) **Definitions.**

- (i) **Median Family Income:** Area median income is established annually by the U.S. Department of Housing and Urban Development, or its successor agency, and applies to the year of sale for ownership units, and applies annually during the period of the PDC affordability agreement for rental units.
- (ii) **Sales Price:** a price which does not exceed 95 percent of the Federal Housing Administration mortgage maximum for a single unit in the Portland Metropolitan area as established annually.

will be exempt from meeting all Green Building Standards otherwise required in Section E of these Guidelines, except Greening Portland's Affordable Housing

3. **Individual Projects.** A project otherwise required to follow these Guidelines may be exempted from program requirements subject to the following.

a) **Exemption Criteria.** The project developer must demonstrate that complying with these Guidelines,

- (i) would burden the project with extraordinary costs affecting the economic feasibility of the project; **OR**
- (ii) is not reasonably feasible due to unique construction or reconstruction circumstances of the project.

b) **Exemption Process.**

- (i) The developer must request an exemption in writing, and provide an explanation and provide any supporting documents necessary to demonstrate the need for an exemption.
- (ii) The request is reviewed by PDC staff in consultation with the Portland Office of Sustainable Development to assess the request for exemption and make a recommendation to the PDC Board of Commissioners.
- (iii) The exemption must be approved or denied by the PDC Board of Commissioners.
- (iv) If an exemption is granted, the developer must agree to:
  - Integrate green building practices into the design and construction of the project to the maximum extent possible and feasible.
  - Provide PDC with reports during construction on the effort to incorporate green building practices into the project.

**J. Administration of Guidelines**

1. **Administrator.** The PDC Executive Director, or designee, shall be responsible for the administration of these Guidelines.



2. **Changes.** The PDC Executive Director is authorized to change or revise these Guidelines as necessary to remain current with City of Portland Green Building Policy, or implement changes to improve the administration, effectiveness or practical application of the PDC Green Building Policy.
3. **Disputes.** The Executive Director is authorized to resolve any dispute arising from the application, administration or enforcement of these Guidelines, with the exception of the PDC Board of Commissioner's decisions regarding the issuance of an exemption.

Approved: PDC Board of Commissioners; Resolution #6262

Date: June 22, 2005

**PORTLAND DEVELOPMENT COMMISSION**  
Portland, Oregon

**RESOLUTION NO. 5754**

**AUTHORIZE THE EXECUTIVE DIRECTOR TO IMPLEMENT  
THE PDC GREEN BUILDING POLICY IN ALL COMMISSION  
PROJECT AREAS.**

**WHEREAS**, the Portland Development Commission strives to achieve Portland's vision of a vital economy with healthy neighborhoods and quality jobs for all citizens; and

**WHEREAS**, the City of Portland accepted the *Sustainable City Principles* in November 1994, stating that the City will promote a sustainable future that meets today's needs without compromising the ability of future generations to meet their needs; and

**WHEREAS**, traditional development and construction practices are significant contributors to the depletion of natural resources and a major cause of air and water pollution, solid waste, deforestation, toxic wastes, health hazards, global warming, and other negative consequences; and

**WHEREAS**, the Portland Development Commission is one of the main agencies associated with City-funded or financed project development and construction; and

**WHEREAS**, the Portland Development Commission seeks to take a leadership role by identifying actions that demonstrate the Commission's commitment to facilitating development of high-performance buildings and sustainable development patterns; and

**WHEREAS**, the Portland Development Commission recognizes and accepts its responsibility to implement and promote building practices that: improve overall building performance, provide more efficient use of natural resources, and help protect and improve environmental quality; and

**WHEREAS**, the Portland Development Commission and the Portland Office of Sustainable Development have produced "Greening Portland's Affordable Housing," which set standards for the incorporation of green building techniques into affordable housing production; and

**WHEREAS**, the United States Green Building Council has, in a national collaborative process, created a standard (LEED™ version 2.0) that identifies a range of actions that define green buildings and established a certification process for such buildings; and

**WHEREAS**, the Commission Green Building Policy shall apply to all future Commission projects except where exempted; now, therefore, be it

**RESOLVED**, that the Commission hereby authorizes and directs the Executive Director to implement recommendations contained the *PDC Green Building Policy*.

**ADOPTED by the Commission** September 12, 2001.

  
\_\_\_\_\_  
Martin Brantley, Chair

  
\_\_\_\_\_  
Carl B. Talton, Acting Secretary

CERTIFICATE OF RECORDING OFFICER

The undersigned hereby certifies, as follows:

1. That s/he is the duly qualified Staff Assistant of the Portland Development Commission, herein called the "Commission," and in such capacity keeps its records, including the minutes of proceedings of the Commission;

2. That the attached resolution is a true and correct copy of the resolution as finally adopted at a meeting of the Commission held on September 12, 2001, and duly recorded in the Commission office;

3. That the undersigned is authorized to execute this certificate.

IN WITNESS WHEREOF the undersigned has executed this certificate.

September 12, 2001  
Date

  
Christina Cain, Commission Asst.



**Resolution No. 36468**

Establish a Sustainable City Government Partnership to set goals, objectives and performance measurements for sustainable practices to be considered by all bureaus and City Council in decision making.

WHEREAS, the City of Portland has a long-standing commitment to stewardship, prosperity, and efficiency both in its internal practices and in community-wide initiatives; and

WHEREAS, many bureaus have demonstrated exemplary leadership in pursuing sustainable practices in their operations; and

WHEREAS, previous coordinated resource efficiency measures have resulted in considerable cost savings for City government, including \$18 million in energy bill savings since 1992 through City Energy Challenge projects, with more than \$2.3 million in savings in 2005-06 alone; and

WHEREAS, significant opportunities remain to build on existing bureau efforts and to foster a collaborative City-wide effort to integrate environmental, economic and social sustainability into municipal operations; and

WHEREAS, the City has adopted resource conservation and sustainability policies that would be further supported and strengthened by the Sustainable City Government Partnership, including:

- 1990 Energy Policy (Ordinance No. 162975),
- Sustainable City Principles (Resolution No. 35338),
- Local Action Plan on Global Warming (Resolution No. 35995),
- City of Portland Green Building Policy (Resolution No. 35956),
- Sustainable Procurement Strategy (Resolution No. 36061),
- Sustainable Paper Use Policy (Resolution No. 36146), and
- Toxics Reduction Strategy (Resolution No. 36408); and

WHEREAS, the Bureau Innovation Project (BIP) Implementation Team has reviewed and approved the BIP #18 Sustainable City Government Partnership working group's recommendations (see Attachment A) for the creation of a coordinated City-wide sustainability effort.

NOW THEREFORE, BE IT RESOLVED, that the Portland City Council acknowledges the work that has been done to date by many of the City of Portland bureaus to implement resource conservation and efficiency practices and programs; and

BE IT FURTHER RESOLVED, that the Portland City Council adopts the Sustainable City Government Partnership to set specific goals, objectives and performance measurements to be used by all bureaus and City Council in decision making; and

BE IT FURTHER RESOLVED, that City bureau directors are directed to:

- Appoint a bureau Sustainability Liaison who has direct access to bureau management decision makers and has experience or skills in developing or implementing strategic plans, and
- Adopt, implement and update a bureau specific sustainability plan and progress report, and
- Contribute to an annual City-wide sustainability report on progress; and

BE IT FURTHER RESOLVED, that the Office of Management & Finance (OMF) and the Office of Sustainable Development (OSD) are directed to work with bureau directors, and their Sustainability Liaisons, to implement the Sustainable City Government Partnership and to report progress to City Council annually; and

BE IT FURTHER RESOLVED, that the Sustainable Development Commission is directed to review the bureau sustainability plans and the City-wide annual report and provide recommendations to City Council.

BE IT FURTHER RESOLVED that this resolution will become binding City policy upon adoption and shall be included in the Portland Policy Documents.

Adopted by the Council: DECEMBER 20, 2006

Prepared by:  
Sara Culp

**GARY BLACKMER**  
Auditor of the City of Portland  
By /S/ANDREW N. BRYANS

Deputy

Mayor Tom Potter  
Commissioner Sam Adams  
Commissioner Randy Leonard  
Commissioner Dan Saltzman  
Commissioner Erik Sten

March 16, 2009

BACKING SHEET INFORMATION

AGENDA NO. 1693-2006

ORDINANCE/RESOLUTION/COUNCIL DOCUMENT NO. 36468

COMMISSIONERS VOTED AS FOLLOWS:		
	YEAS	NAYS
ADAMS	===	===
LEONARD	X	
SALTZMAN	X	
STEN	X	
POTTER	X	

Resolution No. 36310 adopted by Council April 27, 2005

## **ENB-9.02 - Green Building Policy Update**

### **GREEN BUILDING POLICY UPDATE**

*Binding City Policy*

BCP-ENB-9.02

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#### **PURPOSE**

WHEREAS, Portland City Council and the Portland Development Commission support sustainable economic development by encouraging the expansion of jobs in the environmental services and materials sector, which includes green building practices, products, and technologies; and

WHEREAS, development and construction practices are significant contributors to the depletion of natural resources and a major cause of air and water pollution, solid waste, deforestation, toxic wastes, health hazards, global warming, and other negative consequences; and

WHEREAS, buildings use one-quarter of all the world's wood harvest, consume two-fifths of all materials and energy flows, and account for more than one-third of Portland's CO2 emissions; and

WHEREAS, the City Council recognizes that green building complements existing policies related to development and natural resource conservation; including solid waste and recycling policies, the Local Action Plan on Global Warming, Comprehensive Plan, and Metro 2040 Framework Plan; and

WHEREAS, the United States Green Building Council has, in a national collaborative process, created Leadership in Energy and Environmental Design (LEED) standards that identify a range of actions that define green buildings and establish certification processes for new and existing buildings; and

WHEREAS, in 2001, City Council adopted the City's Green Building Policy to address the negative impacts of the construction and operation of the built environment on human health and well-being and the natural environment; and

WHEREAS, the City of Portland Green Building Policy contains the strategies of: 1) incorporating green building practices into all facilities projects constructed, owned or managed by the City, 2) incorporating green building goals and practices into Portland Development Commission's ongoing and future program areas, and 3) promoting the voluntary application of green building guidelines in private sector building design, construction, and operations; and

WHEREAS, the City of Portland Green Building Policy requires all new and major retrofits of City facilities, and all City-funded or -financed projects, to achieve the LEED "Certified" certification level as set out in the United States Green Building Council's LEED standards; and

WHEREAS, Portland has 49 LEED registered buildings, more than any other city in the United States, and most of these are privately owned projects; and

WHEREAS, during the first four years (2001-04) of the Green Building Policy, two projects are LEED-registered and green building practices have been incorporated into numerous new construction, remodel, tenant improvement, and public infrastructure projects; and

WHEREAS, Green Building Policy implementation tools such as the Bureau of Purchases' "Green RFP" language for services involving LEED-obligated projects, the G/Rated Tenant Improvement Guide, and Portland LEED have been developed to help City project managers and staff implement the Green Building Policy in public projects; and

WHEREAS, the Bureau of Development Services' permit Process Management and other process facilitation strategies have been identified as an incentive to develop LEED-certified buildings; and

WHEREAS, the Portland Ecoroof Study demonstrates that ecoroofs throughout the City would yield a variety of private and public environmental, economic, and social benefits; and

WHEREAS, a variety of North American municipalities have implemented aggressive green building policies that go beyond Portland's current standards. The cities of Scottsdale, AZ and Vancouver, British Columbia have LEED Gold certification requirements for all public projects and the cities of Seattle, WA; San Francisco, CA; San Diego, CA; Santa Monica, CA; Alameda County, CA; Berkeley, CA; Arlington, MA; Atlanta, GA; Boulder, CO; Calgary, Alberta; Dallas, TX; Houston, TX; and Kansas City, MO have adopted LEED Silver certification requirements for public projects; and

WHEREAS, the Office of Sustainable Development prepared the memo, "Portland's Green Building Policy: A Status Report & Future Recommendations" ([Appendix A](#)) to evaluate the Policy's past and future efficacy:

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## **POLICY**

NOW THEREFORE, BE IT RESOLVED that the Portland City Council amends the City of Portland's Green Building Policy as Binding Policy and to direct all City Bureaus and the Portland Development Commission to:

- Require that all new, City-owned facilities construction projects meet LEED Gold certification, requiring at least:
  - 75% waste recycling
  - 30% stormwater management beyond Portland baseline code requirements
  - 30% water savings beyond Portland baseline code requirement
  - 30% energy savings beyond Portland baseline code requirement
  - additional commissioning as defined by LEED; and
- Require that all tenant improvements to City-owned facilities are LEED for Commercial Interiors (CI) Silver AND/OR G/Rated Tenant Improvement Guide certified; and
- Require that all PDC-funded projects that are currently required to meet the LEED Certified standard must meet the LEED Silver standard (for all projects where PDC assistance equals 10% or more of total project cost AND where the project is 10,000-ft<sup>2</sup> or greater); and
- Update City of Portland's Affordable Housing green building threshold and voluntary guidelines; and
- Create a sustainable infrastructure best practices manual and baseline requirements for public infrastructure; and
- Require all City operations and maintenance practices undertaken by the City or its contractors to apply the City's Green Building Operations and Maintenance Guidelines under development by the Bureau of General Services. The requirements apply to all facilities, regardless of size and contract type (e.g., either in-house or outsourced contracts). The guidelines will sync up with ongoing maintenance requirements in the LEED EB rating system; and,
- Require design and construction of all new City-owned facilities to include an ecoroof with at least 70% coverage AND high reflectance, Energy Star<sup>TM</sup>-rated roof material on any remaining non-ecoroof roof surface area; OR, Energy Star<sup>TM</sup>-rated roof material when an integrated ecoroof/Energy Star<sup>TM</sup>-rated roof is impractical; and,

BE IT FURTHER RESOLVED that LEED for Existing Buildings (EB) Silver certification is required for all City-owned occupied, existing buildings; and,

BE IT FURTHER RESOLVED that the G/Rated Tenant Improvement Guide AND/OR LEED CI certification shall be implemented to guide all improvements made in City-leased spaces; and,

BE IT FURTHER RESOLVED that all roof replacement projects on City-owned facilities shall install an ecoroof AND high reflectance, Energy Star<sup>TM</sup>-rated roof on any remaining non-ecoroof roof surface area; OR, when an integrated ecoroof/Energy Star<sup>TM</sup>-rated roof is impractical, install an Energy Star<sup>TM</sup>-rated roof;

BE IT FURTHER RESOLVED that the Office of Sustainable Development and Bureau of Development Services partner on "Project Green Build: Optimizing the Building Development Review and Inspection process to Encourage High Performance Building Practices" ([Appendix B](#)) that includes the following actions:



- Provide BDS Process Management for all qualified public and private sector LEED Silver-registered building projects; and
- Identify building and zoning code and process conflicts that inhibit green building practices and technologies; and
- Create an inter-bureau training program for relevant City development review and inspection staff; and
- Create an integrated marketing effort to promote the City's green building services; and

BE IT FURTHER RESOLVED that the City will continue to support the Green Investment Fund and explore other structural incentives such as System Development Charge waivers and Floor Area Ratio bonuses to facilitate the implementation of green buildings in Portland; and,

BE IT FURTHER RESOLVED that the City will Require all City Architecture and Engineering service contracts to follow the Bureau of Purchases Green policies RFP for LEED projects; and,

BE IT FURTHER RESOLVED that the City will require green building training for all appropriate city project managers and maintenance and operations staff; and,

BE IT FURTHER RESOLVED that the Green Building Advisory Team ("GBAT"), made up of members from the City Bureau's of Water, General Services, Environmental Services, Transportation, Sustainable Development, Parks, Planning, Development Services, Maintenance, and the Portland Development Commission, will work with City project teams to implement relevant Green Building Policy directives in City-owned projects; and,

BE IT FURTHER RESOLVED that the Office of Sustainable Development will provide technical and organizational assistance to help all City bureaus to meet the requirements of the City of Portland Green Building Policy and will provide biennial progress reports to City Council.

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[Appendix A](#) - "Portland's Green Building Policy: A Status Report & Future Recommendations (PDF Document, 86 kb)

[Appendix B](#) - "Portland Green Build: Optimizing the Building Development Review and Inspection Process to Encourage High Performance Building Practices" (PDF Document, 37kb)

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