Meeting Date: 09/22/08	Item Number:
AGENDA ITEM: A discussion of Green Building Standards in Culver City	

ATTACHMENTS: **PAGES**

1. Green Building Chronology 1-2
2. Green Building Programs in Other Cities 3-139
3. Demonstration Area Map 140
4. Staffing Requirement Calculation for Option 3 141-142
5. Culver City Mandatory Solar Photovoltaic Information 143
6. "Building Green with Carrots and Sticks", *Western City Magazine*, May 2008 144-145
7. *Los Angeles Business Journa*l Article, August 18, 2008. 146 - 150
8. Other Programs for Consideration 151

Green Building Chronology

- April 2004, two voluntary informational green building handouts were developed and available to the public at the Building Safety information counter.

- February 2005 the City Council considered an item; a "Discussion of Future Green Building Standards in Culver City".

- November 2006 the City Council directed staff to form a **Sustainable City Plan** (SCP). To achieve this; an "Interdepartmental Sustainable Culver City Green Team" was formed consisting of City staff members from several different departments and a City Council subcommittee. The plan includes five overall goal areas: Resource Conservation, Environmental Pollution and Public Health Protection, Solid Waste Diversion and Recycling, Open Space and Land Use, and Community Education and Civic Participation.

- May 2007 Culver City was host to an American Institute of Architects "Sustainable Design Assessment Team" (SDAT). Culver City received technical assistance under the SDAT Program and conducted community outreach through charrette style workshops from which a final report has been received and is being evaluated by staff.

- July 2007 City staff obtained California Energy Commission approval of a Culver City mandatory solar photovoltaic requirement.

- August 2007 the City Council approved the Mayor signing the "U.S. Conference of Mayors Climate Protection Agreement", with a broad goal of reducing greenhouse emissions and global warming.

- February 2008 the City Council gave final approval to a mandatory solar photovoltaic requirement for new construction, additions, and major renovations over 10,000 square feet.

- March 2008 the City Council discussed several green building options, including the green building programs of Santa Monica, West Hollywood, Pasadena, and Manhattan Beach.

- May 2008 City staff hosted a meeting of local green building stakeholders; local design professionals and energy and green environment experts to discuss green building options.

- July 2008 City staff refined the green building options and hosted the second meeting with the green building stakeholders. City staff also met with the City Council Sustainable City subcommittee to discuss overall sustainable City direction.

- July 2008 City staff met again with the City Council sustainable City subcommittee to discuss green building direction.

- August 2008 City staff met with the City Council Sustainable City subcommittee to discuss overall sustainable City direction and this report.

Office of the Mayor
City of Los Angeles

ANTONIO R. VILLARAIGOSA

FOR IMMEDIATE RELEASE
April 22, 2008

Contact: **Parita Shah**
(213) 978-0741

MAYOR VILLARAIGOSA SIGNS GROUNDBREAKING GREEN BUILDING LAW ON EARTH DAY

City Council passes comprehensive and far reaching plan – a first for a major American City that would reduce LA's carbon emissions by more than 80,000 tons by 2012

LOS ANGELES – Taking bold action to combat climate change in Los Angeles, Mayor Antonio Villaraigosa today joined City Council President Eric Garcetti and Councilmembers Jan Perry, Ed Reyes and Bill Rosendahl to sign the Private Sector Green Building Plan into law setting LA on course to cut carbon emissions by more than 80,000 tons by 2012.

Developed by the Mayor's Office in partnership with City Council, the ordinance will create a series of requirements and incentives for developers to meet the US Green Building Council's Energy and Design (LEED) standards – the country's strictest environmental building standards.

"Our City is growing fast and growing up, and we're holding the private sector accountable to their commitment to be friends to our environment," Mayor Villaraigosa said. "Already the City of Los Angeles has the largest, most aggressive municipal green building plan of any large city in America. Now it's time for green building to go private."

During a visit to LA's greenest residential building, the Mayor signed into law the most far reaching plan of any big city in America to promote green building practices in the private sector. The ordinance would reduce the City's carbon emissions by more than 80,000 tons by 2012, the equivalent of taking 15,000 cars off the road – surpassing any other major city in the country.

Under the ordinance, the City will require all projects at or above 50,000 square feet – or 50 units – to comply with the general LEED-certified standard. In exchange, the City will work with builders to speed up approvals and to remove obstacles in the municipal code for elements of sustainable building design, such as green rooftops, cisterns and permeable pavement.

- MORE -

If a builder commits to pursuing LEED silver accreditation, the City will add expedited processing through the Planning and Public Works Departments.

"This legislation puts Los Angeles squarely at the forefront of building green," Council President Garcetti said. "With it we will clean our air, clean our water, preserve our land, and lead the fight against global warming."

In addition to direct incentives, the Mayor's initiative will require the City to train case managers as LEED accredited professionals and will create one-stop checklists of all available City incentives to guide developers through the green building process.

A new cross-departmental Sustainability Team will also be created under the program, generating an unprecedented forum between developers and City staff to address issues arising on both a project basis and a policy level. Meeting regularly with the public, the team will file quarterly reports to the Mayor on the City's progress in implementing the Private Sector Green Building Initiative.

"Today, we are taking another great step toward becoming a greener, more sustainable City. We are already setting a high standard by creating municipal buildings with strict green standards and now we are asking the private sector to do the same in order to make a more significant impact on the quality of our environment here in Los Angeles," said Councilwoman Jan Perry, chair of the Energy and Environment Committee.

"The future of green industry is happening right here in Los Angeles with our green building program," said Councilmember Ed P. Reyes, who chairs the Planning and Land Use Management (PLUM) Committee and the Ad Hoc Committee on the Los Angeles River. "Green buildings reduce energy and water consumption, and improve air quality. That translates into healthier communities and reduced water and power bills for our customers."

"Given that greenhouse gas emissions from buildings account for more than 40% of global warming pollution, the Los Angeles Green Building ordinance is a good first step towards building an energy-efficient, climate friendly sustainable city, said Global Green USA President Matt Petersen. "While certainly not an end destination, it is important that Los Angeles has become the first big city to codify a private sector green building program."

"Trammell Crow Company believes building green is good for business, building green is good for developers and building green is good for the City of Los Angeles," said Brad Cox, Managing Director of Trammell Crow Company and Chairman of the Los Angeles Business Council.

The US Green Building Council awards LEED silver, gold and platinum certifications based on the level of environmental sustainability met by a developer. The site of the news conference, the Luma residential project, is a 19-story high-rise in downtown's South Park neighborhood and has been certified as LEED Gold.

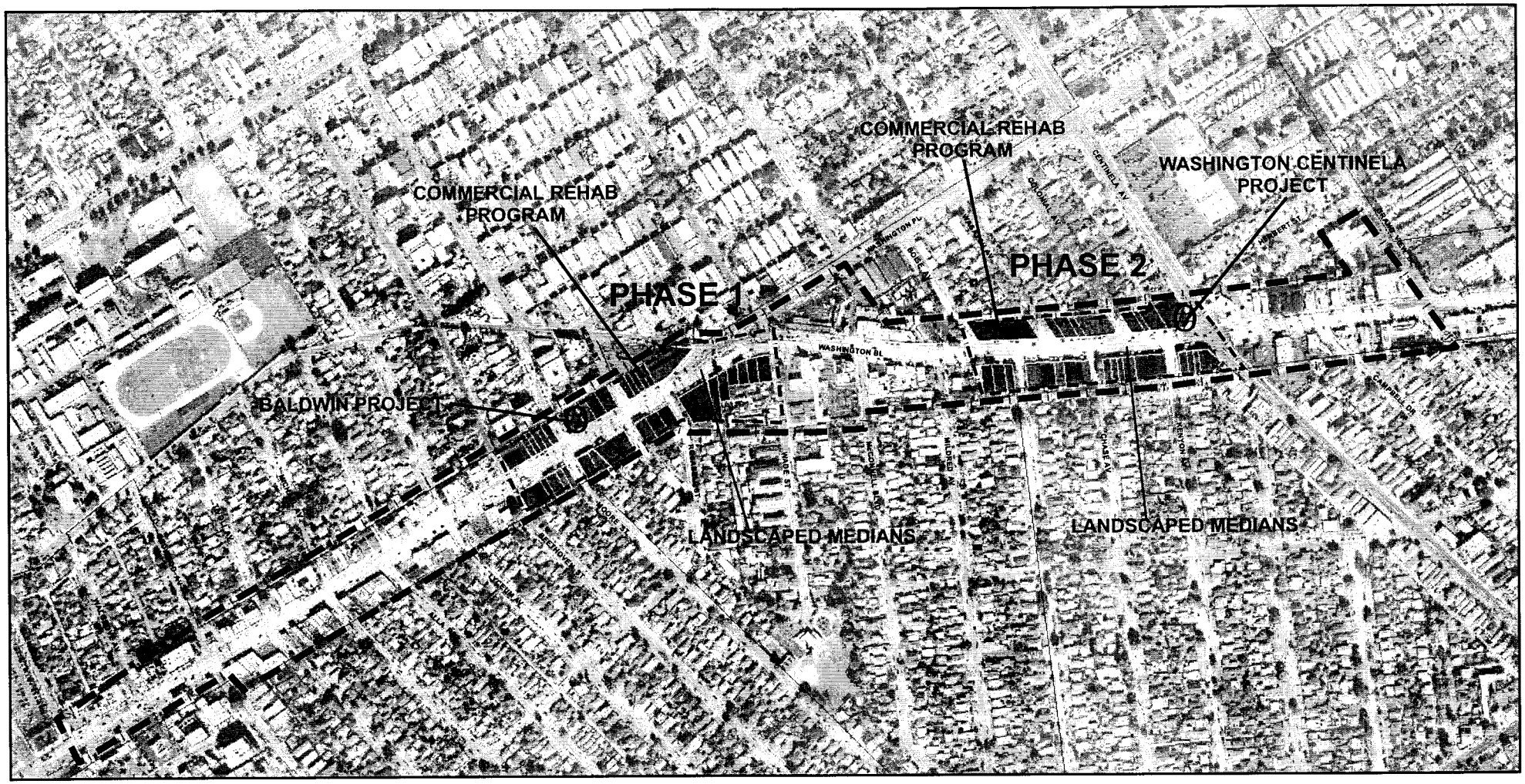
Luma becomes only the second condo complex in California to receive the Gold designation, joining its sister building Elleven, which was LEED Gold certified in October 2007. To reach Gold, Luma has achieved high levels of water and energy efficiencies, improved indoor air quality and drought tolerant landscaping.

The Green Building Plan is an integral part of the Mayor's Green LA Plan which was unveiled in May 2007. The aggressive and bold plan calls for the City to reduce its carbon footprint by 35% below 1990 levels by 2030. The goal goes beyond the targets set in the Kyoto Protocol and is the greatest reduction target of any large US city.

Key Points of the Private Sector Green Building Ordinance

- Require that all new projects greater than 50 units or 50,000 square feet show compliance with the LEED Certified level.
- Expedite processing through all departments, if LEED Silver designation is met.
- Initiate an ongoing review of city codes to ease use of environmentally sound and superior materials and processes.
- Create a cross-departmental Sustainability Team to review and revise green building policies and specific projects. They will meet weekly so that the development community can enjoy ongoing interaction with City staff.
- Direct City General Managers and department and agency heads (namely Planning, Building and Safety, Public Works, Water and Power, Transportation, and CRA) to train and certify their staff in green building methods and policies and/or as LEED Accredited Professionals. This training should be ongoing and appear in each departmental annual budget.
- Work with the Board of DWP Commissioners to continue to add DWP financial incentives for projects that meet green building standards.
- Create and confer the Mayor's Annual Award of Excellence in Sustainable Design & Construction to recognize exemplary efforts by individuals and companies in the private sector.

###



Culver City

West Washington Area

Demonstration Area

Culver City Limit Line

0 375 750 Feet

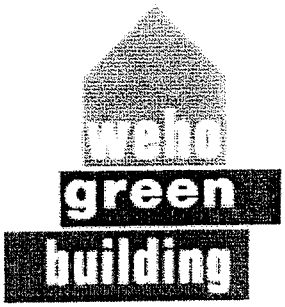
one inch = 375 feet

SCALE 1:4,650

GEOGRAPHIC INFORMATION SYSTEMS
November 26, 2007

City of West Hollywood

Green Building Program



West Hollywood adopted one of the nation's first mandatory green building ordinance and it became effective on October 1, 2007. The ordinance ensures that new buildings will be healthier for residents, and use energy and resources more efficiently. Flexibility, responsiveness to local conditions, and cost-effectiveness are key features of the ordinance. The Green Building Ordinance establishes one of the first mandatory "green building" programs in the country.

The Green Building Requirements and Incentives for Private Development Ordinance focus on the following:

- Establishes new development standards that apply to all development, including all new residential and commercial projects as well as remodels and tenant improvements;
- Develops a point system for new construction with incentives for projects that achieve "exemplary" status; and
- Implements "green building" education and outreach program.

The "green" development standards are green building requirements for remodels, tenant improvements, additions and new construction. These standards were incorporated into the Zoning Ordinance so that all projects incorporate elements such as drought-tolerant landscaping, low-flow plumbing fixtures, and energy efficient appliances.

The green building point system will be incorporated in all new structures, with incentives for projects that go above and beyond minimum requirements. The requirements are structured as a point system to allow for maximum flexibility and the points allowed each reflect West Hollywood's unique opportunities and constraints. Specifically, the point system was designed to emphasize locally-available materials, encourage green elements to be incorporated early into project design and provide flexibility to alter green elements as the project evolves.

In addition, any new public buildings will be certified by the Leadership in Energy and Environment Design (LEED) program. A Green Building Resource Center, located on the second floor at City Hall,provides a sampling of green building materials, practices, and additional information. These are a few of the ways that West Hollywood continues our commitment to Responsibility for the Environment. More information can be found below.

- **About Green Building**
  The What, Why and How.
  more
- **Goals - Simple Concept**

Green building is a simple concept -- design buildings and use land to save energy and reduce waste. In doing so, residents and businesses will...

more

- **Benefits and Gains**
  Paying it forward.
  more
- **Green Building Resource Center**
  The Green Building Resource Center located on the second floor at West Hollywood City Hall provides a sampling of building materials and practices that increase...
  more
- **Web Resources**
  Links to additional information including design, publications and Green Building programs in other cities.
  more

WEST HOLLYWOOD GREEN BUILDING PROGRAM POINT SYSTEM

CATEGORY & POINTS AVAILABLE		GREEN DESIGN OR PRODUCT DESCRIPTION	POINTS REC'D	PAGE NUMBER OF PLANS
SITE LOCATION		Locate buildings close to existing services to reduce environmental impacts from transportation and fully utilize infrastructure. Preserve or restore existing natural resources or amenities on the site. Ensure that the building is equipped to support recycling, alternative transportation, water conservation and other operations components.		
	1 to 3	Preserve Existing Trees Over 6" Diameter (1 pt/tree; 3 pts max.)		
	1	Use Recycled Content Mulch or Other Landscape Amendments		
Total Points	4		0	
NATURAL HEATING + COOLING		Reduce energy loads while maintaining comfort through passive design strategies. Increase interior comfort ar health through adequate ventilation.		
	5	Plant Deciduous Canopy Trees (min. 36" box, planted in the ground) on Exposed West and/or South Elevations (1 pt/tree, 5 pts max.)		
	5	Provide Narrow Floor Plates (max. 50 ft. depth) and/or Courtyards to Enable Natural Ventilation		
	2	Provide Operable Windows to Enable Natural Cross Ventilation (min. 20% of total window area)		
	2	Install Exterior Shading Devices on South- and/or West-Facing Windows		
	2	Provide Ceiling Fans (1 pt for each 50% of units or floor area served; 2 points max.)		
	3	Eliminate Air Conditioning (available only if points for narrow floor plates, operable windows, and exterior shading are incorporated)		
Total Points	19		0	
FOUNDATION		Reduce resources used and encourage use of recycled-content materials.		
	1	Use Recycled-Content Base or Backfill Material		
	3	Incorporate Flyash or Slag Ash in Concrete (min. 15%)		
	2	Increase Flyash Percentage (1 pt for each additional 5%)		
Total Points	6		0	
STRUCTURAL FRAME		Reduce the amount of old growth sawn wood (wider than 3x and taller than 8x) used in framing, encourage ecologically sensitive forestry, and encourage alternate framing techniques.		
	5	Use Engineered Lumber or Steel for minimum of 90% of subfloors, sheeting, floor joists, beams, headers, and trusses, as applicable.		
	2	Use Engineered Vertical Wood Studs		
	5	Use FSC-Certified Wood for Framing (1 pt for every 10% of framing lumber; max. 5 pts)		
	2	Use Structural Insulated Panels (SIPs)		
Total Points	14		0	
PLUMBING		Increase the water efficiency of plumbing fixtures and reduce energy used for water heating.		
	1	Insulate the full length of all hot water pipes.		
	1	Install Low-Flow Showerheads (< 2.5 gpm)		
	1	Install Water Efficient Kitchen & Bathroom Faucets (<2.5 gpm)		
	1	Install Water Efficient Toilets (Dual-flush or <1.3 gpf)		

WEST HOLLYWOOD GREEN BUILDING PROGRAM POINT SYSTEM

CATEGORY & POINTS AVAILABLE		GREEN DESIGN OR PRODUCT DESCRIPTION	POINTS REC'D	PAGE NUMBER OF PLANS
INSULATION		Reduce energy losses through the building envelope and improve occupant comfort. Promote better indoor c quality. Increase use of recycled content and rapidly renewable materials.		
	1	Install Formaldehyde-Free, Recycled-Content (min. 25%) Insulation		
	2	Install Cellulose, Cotton Batt, Bio-Based Foam in walls (min. 60% of insulation)		
	2	Install Cellulose, Cotton Batt, Bio-Based Foam in ceilings (min. 60% of insulation)		
Total Points	**5**		**0**	
ENERGY EFFICIENCY + RENEWABLE ENERGY		Reduce climate change impacts of building operation by increasing overall building energy efficiency and generating renewable energy. Provide for the future installation of renewable energy systems.		
	5	Exceed Title 24 Energy Code by 5%		
	15	Exceed Title 24 Energy Code by More Than 5%. (1 pt for each additional 1% above 5% ; max. 15 pts)		
	3	Participate in Energy Star (residential) or Savings By Design (commercial) Programs		
	1	Pre-Plumb and Provide Conduit for Solar Water Heating		
	2	Install Solar Water Heating System for Domestic Hot Water		
	2	Install Solar Water Heating System for Pool Heating		
	10	Install Photovoltaic (PV) Panels (1 pt/kW ; max. 10 pts)		
	3	Install Energy Star Lighting (50% of total fixtures)		
	1	Install Energy Star Exit Signs		
	1	Install Energy Star Programmable Thermostats		
	1	Install Timer or Photo Sensor for Exterior Lights		
	1	Seal all Ducts with Mastic (residential) or Install per SMACNA standards (commercial)		
Total Points	**45**		**0**	
INDOOR AIR QUALITY		Increase quality of indoor air by reducing exposure to toxic chemicals. Decrease concentration of toxins and dust through ventilation and filtration.		
	2	Use No-VOC Paints on Interior Applications (<= 5 g/l)		
	2	Use Low-VOC Sealants and Adhesives (<= 50 g/l)		
	2	Use Composite Wood with No Added Urea Formaldehyde for Counters and Cabinets		
	1	Use Carpet Certified by CRI Green Label Program		
	2	Eliminate the Use of Carpet		
	2	Vent Kitchen Range Hoods to the Outside (min. 80% of units)		
	1	Install Fan with Humidistat Sensor or Timer in all Bathrooms		
	1	Install High Efficiency HVAC Filters (min. MERV 8) or Provide Ductless System		
	1	Provide Daylighting for 50% of occupied spaces		
Total Points	**14**		**0**	

WEST HOLLYWOOD GREEN BUILDING PROGRAM POINT SYSTEM

CATEGORY & POINTS AVAILABLE		GREEN DESIGN OR PRODUCT DESCRIPTION	POINTS REC'D	PAGE NUMBER O PLANS
MANDATORY POINTS				
	0	Provide Secure Bike Parking (1 space/7 employees or 10,000 sq. ft. or 1 space/ 4 dwelling units)	NA	
New Code Requirements as part of Green Building Ordinance, effective October 1, 2007	0	Label Storm Drains Adjacent to the Property	NA	
	0	Provide Roof Location and Install Conduit from Roof to Electrical Room for Future Photovoltaic System (PV) Installation	NA	
	0	Install Energy Star Appliances - Refrigerator, Washing Machine, Dishwasher	NA	
	0	Provide Construction Air Quality Management Plan in Specs (at a minimum protect ducts during construction and change filters and vacuum ducts prior to occupancy)	NA	
	0	Use Low-VOC Interior Paints and Wood Finishes (<= 50 g/l flat; <= 150 g/l non-flat)	NA	
	0	Provide owner or tenant with a Green Features/Benefits Manual	NA	
Existing Code Requirements for Green Building (still applicable)	0	Provide Space for the Collection and Storage of Recyclables	NA	
	0	Provide preferential parking for alternative fuel vehicles (min. 2% of total spaces for commercial lots with more than 25 spaces)	NA	
	0	Divert Construction and Demolition Waste (min. of 80%)	NA	
	0	Provide Construction Site Storm Water Management Plan	NA	
	0	Provide Permeable Surfaces in Required Yards (55% of front and 50% of side)	NA	
	0	Treat First 1/2 inch of Storm water with Natural or Mechanical System	NA	
	0	Replace Existing Trees over 6" in Diameter that are Removed for Development (min. 24" box planted in the ground)	NA	
	0	Use Drought Tolerant and Native Species for Landscaping	NA	
	0	Install Water-Efficient Irrigation System	NA	
	0	Parking Landscaping for Surface Parking Areas - Projects must comply with all applicable requirements. See Section 19.28.100(B) on Parking Area Landscaping Requirements.	NA	
	0	Transportation Demand Management - Projects must comply with applicable requirements. See Chapter 10.16 on Transportation Demand Management.	NA	

ORDINANCE NO. 07-762

AN ORDINANCE OF THE CITY OF WEST HOLLYWOOD APPROVING ZONE TEXT AMENDMENT 2007-001 AND ZONE TEXT AMENDMENT 2007-005 TO CREATE A GREEN BUILDING PROGRAM FOR PRIVATE DEVELOPMENT WITH INCENTIVES FOR EXEMPLARY PROJECTS

THE CITY COUNCIL OF THE CITY OF WEST HOLLYWOOD DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. On December 15, 2005, the City Council directed the Community Development Department the Community Development Department to develop a green building program to include a mandatory green building point system for private development and consider incentives for high-achieving projects.

SECTION 2. At duly-noticed public hearings on March 15, and April 19, 2007, the City of West Hollywood Planning Commission adopted Resolution Nos. PC 07-716 and 07-729, recommending to the City Council approval of Zone Text Amendments 2007-001 and 2007-005 relating to green building for private development.

SECTION 3. A Negative Declaration was prepared in accordance with the provisions of the California Environmental Quality Act. The public review period for the Negative Declaration began on February 9, 2007 and ended on March 1, 2007. No comments were received. Public notice of availability of the Negative Declaration was properly provided by publication in the Beverly Press and the West Hollywood Independent Newspapers on February 8, 2007, and a public hearing was held on March 15, 2007 at the time of the Planning Commission's consideration of the item. The Negative Declaration identifies that the project would not result in any significant environmental impacts. The Planning Commission recommends that the City Council of the City of West Hollywood adopt the Negative Declaration as adequate and complete.

SECTION 4. On June 4, 2007, the City Council conducted a duly noticed public hearing on General Plan Amendment 2007-001 which was noticed by advertisement in the West Hollywood Independent on the Beverly Press on May 24, 2007. In addition, notice was sent to all neighborhood watch groups on May 25, 2006. Copies of the staff report have been on file at the West Hollywood City Hall since June 14, 2007.

SECTION 5. The City Council of the City of West Hollywood hereby finds that the amendment to Chapter 19.20 of Title 19 of the Municipal Code is

1. Prior to the issuance of building permits, the applicant shall submit evidence satisfactory to the Director of Community Development that the services of a LEED accredited professional have been retained, and that the project has been registered with the LEED rating program.

2. A LEED checklist and supporting documentation indicating points that achieve a minimum LEED rating of "Certified" shall be incorporated into the documentation for building permit submittal. The LEED checklist shall be prepared, signed, and dated by the project LEED accredited professional.

3. All building documents shall indicate in the general notes and/or individual detail drawings, where feasible, the green building measures employed to attain the applicable LEED rating.

C. *Incentives for High-Achieving Projects.* Projects that select, and comply with, a minimum of 90 points from the West Hollywood Green Building Point System Table, and that do not include the demolition of a cultural resource, shall be permitted to select one of the following incentives:

1. In multi-family residential or mixed-use projects; one additional residential unit, not to exceed 700 square feet, may be permitted without additional required parking.

2. In multi-family residential or mixed-use projects, 100% of the required common open space may be provided on the roof if the project installs and maintains a vegetated green roof for at least 50% of the roof area not occupied by mechanical equipment or access stairways. Noise attenuation features shall be incorporated into the projects design.

3. In multi-family residential or mixed-use projects, private open space may be transferred to and provided as common open space area, provided that 50% of the units provide a minimum of 50 square feet of private open space which has a minimum dimension of 5 feet in each direction. Alternately, the project may divide all common open space and add it to private open space areas. These incentives shall not available to projects utilizing any courtyard design incentives.

4. In multi-family residential projects, the area in the side setbacks may be used to satisfy common and/or private open space area requirements. Noise attenuation features shall be incorporated into the project's design.

PASSED, APPROVED AND ADOPTED by the City Council of the City of West Hollywood at a regular meeting held the 16th day of July, 2007, by the following vote:

AYES:	Councilmember:	Guarriello, Heilman, Land, Mayor Pro Tempore Prang, and Mayor Duran
NOES:	Councilmember:	None.
ABSENT:	Councilmember:	None.
ABSTAIN:	Councilmember:	None.

JOHN DURAN, MAYOR

ATTEST:

THOMAS R. WEST, CITY CLERK

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES)
CITY OF WEST HOLLYWOOD)

I, THOMAS R. WEST, City Clerk of the City of West Hollywood, do hereby certify that the foregoing Ordinance No. 07-762 was duly passed, approved and adopted by the City Council of the City of West Hollywood at a regular meeting held on the 16th day of July, 2007, after having its first reading at the regular meeting of said City Council on the 18th day of June, 2007.

I further certify that this ordinance was posted in three public places as provided for in Resolution No. 5, adopted the 29th day of November, 1984.

WITNESS MY HAND AND OFFICIAL SEAL THIS 17th DAY OF JULY, 2007.

Thomas R. West, City Clerk

Newsweek

Small City, Big Impact

How West Hollywood is casting itself as a green leader

By Andrew Murr
NEWSWEEK WEB EXCLUSIVE
Updated: 11:38 AM ET Oct 18, 2007

Being green means different things in different parts of the country. In St. Louis, Seattle and other places, eco-friendly construction standards apply only to city-owned or city-funded buildings. In Boston and a few other cities, green construction codes also apply to major commercial or residential developments.

So which American city thinks it can lay claim to the most comprehensive green building standards? Look west to tiny city of West Hollywood, Calif., a 1.9-square-mile patch of Los Angeles with 37,000 people, making it the city with the highest population density west of the Mississippi. Starting October 1, every private and public development must meet the city's ambitious new green building requirements. The policy includes new construction, rehabs and additions. The only exemptions: duplexes and single-family homes. Requiring so many of the city's real estate projects to meet green building standards puts West Hollywood in the forefront of the move to thrust eco-friendly design closer to the mainstream of architecture and planning.

According to city officials, thinking about smaller projects was the only way to make a big dent in West Hollywood's carbon footprint. "We thought it was important to involve everybody [to be part of the solution]," says councilmember Abbe Land, coauthor of the new ordinance.

Developed with the help of consultant Global Green USA, a nonprofit based in Santa Monica, as well as through community meetings that included developers, the idea was to make up local rules to be administered by local officials, not a national building council. The city installed a green resources center at city hall to make education simple. Officials wanted to be encompassing without being punitive. "It's best when you can develop public policy that is doable," says Land.

Under the strict but more doable rules, developers can't get city construction permits until a project has earned at least 60 points (from a menu of 160 possible points). For example, planting canopy trees can get five points. Using exposed concrete floors can net developers up to five points, bamboo or other rapidly renewable floors up to three points. Cellulose wall insulation gets two points, Energy Star-certified lighting, three points. Projects can earn up to 10 points (1 point per kilowatt) for using solar panels. In addition, all developers must meet mandatory requirements, such as reducing to 20 percent the construction waste they haul to the dump, making all roofs solar panel-ready, and using low-volatility paints and Energy Star appliances.

Once they get to 90 points, developers can choose between eight incentives, including expedited permitting and variances, like approval of an extra housing unit. That was enough for Enrique Melcer, managing partner of a family-owned development firm, who is building seven condos on a "challenging" and narrow site on Detroit Street. Melcer's attempting to earn 90 points to take advantage of an incentive that would let him build city-mandated common space on the roof rather than on the street. "If we had to put it on the ground level, it would make the project very difficult," says Melcer. To boost his point total he's putting in energy-efficient windows and insulation (up to 15 points), tankless water heaters (two points) and a green roof (eight points).

West Hollywood officials hope that the system is simpler than the United States Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system. (Some

City of Pasadena.NET

PASADENA
Planning & Development

A GREEN & SUSTAINABLE COMMUNITY

PASADENA

THINK GREEN

Welcome to Pasadena's **Green City** homepage!

Within this site you will find convenient access to information, services and programs that support the City's commitment to become a sustainable and green community. The City is committed to addressing urban growth issues impacting energy, waste reduction, urban design, urban nature, transportation, environmental health, and water.

What is a green and sustainable city?

Why become a green and sustainable city?

How will Pasadena become a green city?

Environmental Charter

2006 United Nations Green Cities Declaration and Urban Environmental Accords

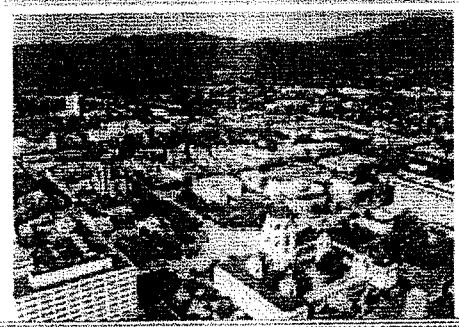
US Conference of Mayor's Climate Protection Agreement

Green City Action Plan

Environmental Advisory Commission

WHAT IS A GREEN AND SUSTAINABLE CITY?

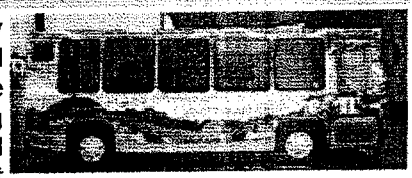
THINK GREEN



A green and sustainable city is a community of residents, neighbors, workers, and visitors who strive together to balance ecological, economic, and social needs to ensure a clean, healthy and safe environment for all members of society and for generations to come.

WHY BECOME A GREEN AND SUSTAINABLE CITY?

THINK GREEN

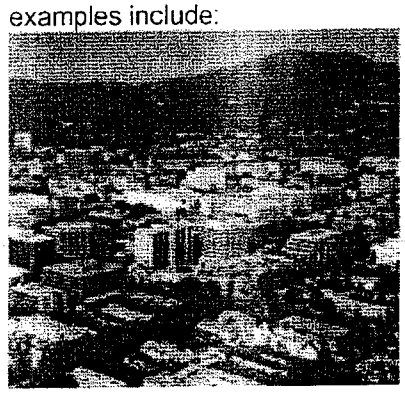


To ensure a viable future, the City must take a leadership role and address the impacts placed on the environment by urbanization and a growing populace. These impacts include air and water pollution, climate change, and habitat loss.

HOW WILL PASADENA BECOME A GREEN CITY?

THINK GREEN

The City has taken a number of significant actions to become a green city. Recent examples include:



- Adoption of an Environmental Charter
- Endorsement of the United Nations Green Cities Declaration and Urban Environmental Accords
- Endorsement of the US Conference of Mayors Climate Protection Agreement
- Adoption of a Green City Action Plan
- Adoption of ordinance creating an Environmental Advisory Commission
- Adoption of a Green Building Program

ENVIRONMENTAL CHARTER

THINK GREEN

The City of Pasadena elects to be an environmental advocate and a leader in environmental compliance and protection. The City shall cultivate superior environmental standards that will provide for sustainable municipal development.

The City recognizes that growth and opportunity cannot be conducted at the expense of environmental protection and enhancement, and that growth and environmental stewardship are intimately related.

The City believes that the implementation of an environmental ethic need not interfere with economic development, and that practicing such environmental ethic can ultimately be expected to enhance economic affairs and provide for responsible, farsighted development.

The City believes that the protection of the urban and natural environments is a social responsibility and a fundamental obligation of a democratic government, and that an ecologically impoverished and polluted environment adversely impacts human health.

The City is striving to become a model for environmental excellence and a prevailing force in environmental protection. To accomplish these goals, the City shall establish policies that will incorporate environmental responsibility into its daily management of urban and industrial growth, education, energy and water

use, air quality, transportation, waste reduction, economic development, and open space and natural habitats.

2006 UNITED NATIONS GREEN CITIES DECLARATION AND URBAN ENVIRONMENTAL ACCORDS

THINK GREEN

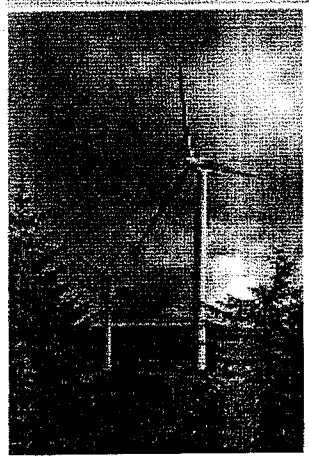
The United Nations Green Cities Declaration is a collaborative platform and a call to action for cities across the globe to take in recognition that a majority of the world's population now reside in cities, and that cities consume 75% of the world's natural resources creating environmental challenges. The Urban Environmental Accords contain 21 action items that lay the groundwork for addressing universal urban environmental issues on energy, waste reduction, urban design, urban nature, transportation, environmental health, water issues.

More information on the United Nations Green Cities Declaration and Urban Environmental Accords can be found on the World Environment day website at http://www.wed2005.org/3.1.php

You can also read the Pasadena Proclamation in support of the United Nations Green Cities Declaration and Urban Environmental Accords

US CONFERENCE OF MAYOR'S CLIMATE PROTECTION AGREEMENT

THINK GREEN



The US Conference of Mayor's Climate Protection Agreement seeks for cities across the United States to commit to reducing global warming pollution levels to 7 percent below 1990 levels by 2012 in accordance with the Kyoto Protocol. In order to achieve this goal, cities are asked to take actions in their own operations and communities. The Agreement offers twelve measures for cities to take that that will contribute to reducing greenhouse gas emissions (GHG). The goals are compatible with the Urban Environmental Accords although the focus is directed towards reducing global warming.

More information on the agreement can be found at http://www.seattle.gov/mayor/climate/

You can also read the Pasadena Proclamation in support of US Conference of Mayor's Climate Protection Agreement

GREEN CITY ACTION PLAN

THINK GREEN

Approved by the City Council on September 18, 2006 (staff report) the Green City Action Plan is a progressive list of environmental initiatives for the City to take in its quest to become a sustainable and green community and follows the framework of the United Nations Green Cities Declaration and Urban Environmental Accords . The initiatives contained in the plan include developing a green fleet of city vehicles, using only environmentally friendly cleaning products in City buildings, and buying "green" goods where possible.

GREEN CITY ACTION PLAN

ENVIRONMENTAL ADVISORY COMMISSION

THINK GREEN

Effective January 22, 2007 - The Environmental Advisory Commission consists of nine Pasadena residents who advise the City Council and make policy recommendations in support of the goals and objectives of the City's Environmental Charter and monitor and guide the Green City Action Plan. This commission holds monthly open meetings to the public and serves as a forum for the discussion of environmental issues with local, regional, and global impacts. To view agendas for the any meetings, click here.

THINK GREEN

Last Updated 11/20/2007

175 North Garfield Avenue, Pasadena CA 91109 (626) 744-4009

GREEN CITY ACTION PLAN 2006

PASADENA

THINK GREEN

FOR GENERATIONS TO COME

INTRODUCTION

How can Pasadena protect its distinctive quality of life when faced with the demands of growth and global impacts on natural resources?

To help address this concern, Pasadena is launching a comprehensive environmental action plan that will guide the City towards sustainability and which will accelerate the City's environmental commitment.

The framework for and goals contained within this Green City Action Plan follow the United Nations Urban Environmental Accords of 2005 which acknowledge the environmental challenges and opportunities facing urban areas across the globe. The Accords offers cities 21 specific goals to accomplish by World Environment Day 2012 with three goals assigned to each of the following urban sustainability thematic areas:

1. Energy
2. Waste Reduction
3. Urban Design
4. Urban Nature
5. Transportation
6. Environmental Health
7. Water

This Green City Action Plan contains a wide range of initiatives that form a strategy towards fulfilling the ambitions of the Urban Environmental Accords. Identified are means to conserve energy and water, reduce waste, address global warming, tailor urban design, protect natural habitats, improve transportation options and reduce risks to human health.

At the end of the seven years a city that has successfully implemented actions will be recognized by the United Nations as a Green City with a ranking determined by the number of actions completed.

19-21	ACTIONS		CITY
16-18	ACTIONS		CITY
12-15	ACTIONS		CITY
8-11	ACTIONS		CITY

The good news is that Pasadena has achieved at least seven of the Accords actions through past efforts and on-going programs. Potentially, an additional two actions will be completed by the end of 2007 ensuring the City a minimum Green City Status. However, every effort will be made to achieve the highest Green City ranking possible.

But the City is striving to do more than just tally points - initiatives have been added to many of the achieved actions to further strengthen the City's commitment to sustainability.

With a history of environmental conservation, and wealth of scientific achievement, Pasadena is uniquely situated to introduce innovative solutions to meet the goals set forth in the Urban Environmental Accords.

Successful implementation of this strategic action plan during the next six years will ensure Pasadena remains competitively poised for future growth while preserving the health of its environment for generations to come.

PASADENA

ENERGY

ACTION 1

Increase the use of renewable energy to meet 10% of the city's peak electric load within seven years.

Pasadena is fortunate to have its own utility, Pasadena Water & Power, which has been in operation since 1906 and is committed to securing reliable renewable energy contracts with the goal of supplying residents with 10% renewable energy by 2010 and 20% by 2017. The Water and Power Department is studying the feasibility of phasing in 100% green power at City facilities, including City Hall, the Pasadena Conference Center, and the City's community centers. In order to reach this goal, an analysis of the costs of providing "green power" (energy derived from wind) at these facilities against the environmental benefits will be performed. The City will also investigate the feasibility of generating renewable energy by installing solar power equipment on city-owned facilities such as water reservoirs and parking structures.

DID YOU KNOW?

Renewable energy is energy derived from sustaining sources such as wind, geothermal (steam from underground magna), landfill gas (methane produced from trash), solar (sun) and hydroelectric facilities (dams).

ACTION 2

Reduce the city's peak electric load by 10% within seven years through energy efficiency, shifting the timing of energy demand and conservation measures.

The Pasadena Water & Power Department expects completion of an energy efficiency study by 2007 and incorporating experience with customer efficiency retrofit measures to design and implement future cost-effective energy efficiency programs including:

1. Requiring new commercial projects to achieve a minimum 10% energy efficiency over baseline by amending the Green Building Practices Ordinance.

2. Conducting a feasibility study for installing devices on municipal and private buildings that reduce the power required to operate equipment and for shifting the equipment usage to off-peak

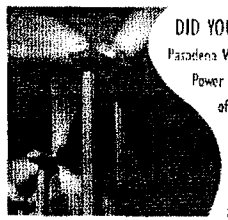
3. Creating a "time of use" billing rate that offers lower rates for electric usage during off-peak hours than during peak hours. Other possible rates to consider include tiered energy rates

4. Replacing incandescent traffic signal lights with energy saving lights.

ACTION 3

Reduce greenhouse gas emissions by 15% by 2010, and create a system for accounting and reporting citywide emissions.

The Pasadena Water & Power Department will complete a study calculating the amount of greenhouse gas emitted in Pasadena to use as a gauge to plan future reductions that meet or exceed the action goal.



DID YOU KNOW?

Pasadena Water & Power offers Green Power to residents. PWP is pleased to offer environmentally friendly "green power" to customers. Currently, 100% of PWP's green power comes from wind sources and is available for an extra energy charge. Customers can choose from three different options at incremental additional costs - a small price to pay for these cleaner energy sources.

If you have questions or want to learn more, please call PWP at (626) 744-4005 or (626) 744-6970 (PWP AnswerLine) for more information or visit the city's website at www.ci.pasadena.ca.us.

WASTE REDUCTION

ACTION 4

Achieve zero waste to landfills and incinerators by 2040.

This ambitious goal can be achieved with advancements in technology and by starting off with realistic first-steps as follows:

- Require new construction projects to divert 60% of their waste away from landfills

- Implement increased diversion requirements for franchises establishing a goal of reaching a 75% diversion rate (a 50% increase from the current requirement) for the collection of solid waste or pay liquidated damages

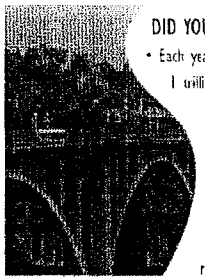
- Ensure development and construction of new structures has on-site recycling areas (in compliance with the Zoning Code Section 17.40.120)

- Request a plan from franchises outlining strategies to increase commercial recycling as a condition of license renewal

- Implement a Food Waste Recycling Program for restaurants within the City

- Establish a permanent electronic waste collection center in the City where residents can bring their electronic and universal waste to be recycled

- Work in collaboration with local grocery stores and supermarkets to set a reduction target of a given quantity of disposable grocery bags



DID YOU KNOW?

- Each year, an estimated 500 billion to 1 trillion plastic bags are consumed worldwide
- If Californians cut their plastic bag waste in half, it would save over two thousand barrels of oil a day (over 800,000 barrels a year) and keep 73,000 tons of rubbish out of our landfills
- Some estimate a plastic bag takes one thousand years to decompose
- Only 10 to 15 percent of paper bags and 1 to 3 percent of plastic bags are recycled

ACTION 5

Reduce the use of a disposable, toxic, or non-renewable product category by at least 50% in seven years.

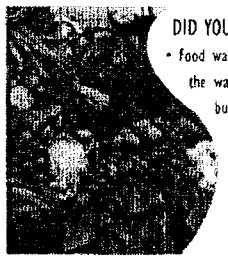
Support statewide legislation and local initiatives requiring manufacturers to take responsibility for collecting and recycling their products at the end of their useful life.

ACTION 6

Implement "user-friendly" recycling and composting programs, with the goal of reducing the 3.5 lbs per capita solid waste disposed to landfill and incineration in seven years.

In 2004, 62% of Pasadena's waste was diverted from landfills through recycling and reuse. This accomplishment is a result of Pasadena's many user-friendly recycling and composting programs including curbside recycling, pay-as-you-throw, composting workshops, and outstanding recycler awards. These programs will continue to ensure the action goal is met.

To learn more about the City of Pasadena's Recycling and Reduction programs, visit the City of Pasadena Department of Public Works Recycling website at http://www.ci.pasadena.ca.us/publicworks/smiwmii.



DID YOU KNOW?

- Food waste alone accounts for 40% of the waste stream from residents and businesses in Pasadena

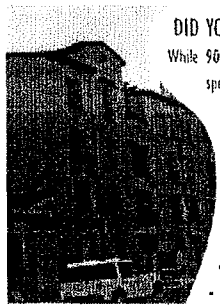
URBAN DESIGN

ACTION 7

Mandate a green building rating system standard that applies to all new municipal buildings.

This requirement has been met by the adoption of the Green Building Practices Ordinance which is a comprehensive program that promotes the construction and operation of environmentally sound buildings in the City. To continue advancing this initiative, in April 2008, the Pasadena City Council will evaluate the success of the Green Building Practices Ordinance and consider lowering the thresholds for projects and creating green standards for residential projects.

An important component of green building is the need to maintain healthy indoor air quality after the building has been constructed. To provide an example for Pasadena businesses, the City is developing practices for cleaning, maintenance, and operations of municipal facilities to further advance sustainability and eliminate the use of toxins. Maintenance staff will be trained, and purchasing staff will be required to purchase environmentally preferable cleaning products. Further, green specifications will be adopted for City remodeling projects, requiring low-emission and environmentally-friendly carpet, sealants, adhesives, paint, flooring, and office furnishings.



DID YOU KNOW?

While 90% of the average American's time is spent indoors, 30% of buildings have poor air quality?

In the United States, buildings account for:

- 72% of electricity use
- 30% of greenhouse gas emissions
- 30% of raw materials use
- 30% of waste output
- 12% of potable water consumption

ACTION 8

Advance higher density mixed use walkable, bikeable and disabled accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.

Since adopting the General Plan Land Use and Mobility Elements in 1994, Pasadena has embraced the concepts of high-density, mixed use, walkable, bikeable, and disabled-accessible neighborhoods and through these efforts has achieved this action. As new developments are introduced, the City will monitor plans to ensure that each new project enhances the pedestrian and transit environment.

Each new and amended planning document will contain objectives, policies and implementation measures that support the coordination of land use and transportation with open space systems for recreation and ecological reconstruction.

Pasadena supports the development of transit-oriented developments, and continues to seek local, state, and federal funding sources that provide funds for multi-modal transportation that better connect the community and disabled residents to the City's open space systems.

ACTION 9

Create environmentally beneficial jobs in clean and/or [illegible]

The Maintenance Assistance Services to Homeowners (MASH) Program provides housing rehabilitation and related services in needy areas of Northwest Pasadena. The MASH Program, in addition to mitigating blight, also serves as a job training mechanism for up to 70 low-income and at-risk individuals. The Water & Power Department works with MASH to install water and energy conserving fixtures in low-income neighborhoods. As the electronic waste and food compost pilot programs develop, MASH employees will be involved and assist with the logistics of the programs.

In order to foster environmental stewardship through the education of area youth, Pasadena partners with community organizations to develop outdoor environmental education and vocational model programs at the City's local parks and open spaces.

The City will pursue forward thinking opportunities to promote and create "green collar" jobs.

URBAN NATURE

ACTION 10

Ensure that there is an accessible public park or recreational open space within 1/2 kilometer of all residents by 2015.

The City of Pasadena is amending the Recreation and Parks Master Plan and Green Space and Recreation Element of the General Plan to include the goal of providing an accessible public park or recreational open space exists within 1/2 mile of every resident.

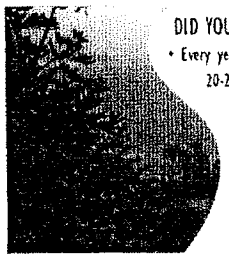
Core Green Space principles include:

- All Pasadena neighborhoods shall have access to park, open spaces and recreation facilities that serve their unique needs
- All Pasadena residents shall live within reasonable walking distance of a park, open space, or recreation facility
- Pasadena will be a City that actively creates new green spaces by promoting creative partnerships with the Pasadena Unified School District and other agencies and private institutions to provide access to and development of non-traditional parks, cultural and recreational opportunities

ACTION 11

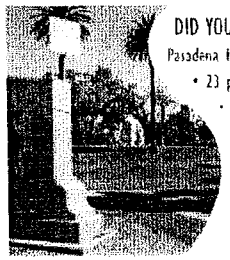
Conduct an inventory of existing canopy coverage in the City and then monitor every [illegible] maintain canopy coverage to not less than 15% of all available sidewalk planting sites.

The City of Pasadena is conducting a tree canopy coverage survey which will provide information on the benefits provided by City trees and be used as a baseline to monitor the tree canopy coverage. The City will maintain the 62,000 public trees that grace the landscape with the goal of having no more than 5% vacancy in dedicated street planting areas at any given time.



DID YOU KNOW?

- Every year, deforestation constitutes 20-25% of worldwide carbon dioxide emissions
- Trees help reduce stormwater runoff, erosion, add oxygen, provide shade, and increase property values



DID YOU KNOW?

Pasadena has

- 23 parks
- 341 acres of parkland
- 62,000 public trees

ACTION 12

Protect [illegible] and [illegible] from unsustainable development.

Pasadena values the beautiful Arroyo Seco and Eaton Canyon park lands, and protection of the native animals who live in these habitats. Pasadena is proactively seeking funding for habitat restoration projects, which are planned in the Arroyo Seco Master Plans.

The City recently finished a study on the Arroyo Seco Watershed, in which measures where outlined that will restore the watershed. Implementation of the recommendations is actively being pursued.

TRANSPORTATION

ACTION 13

Expand the public transportation coverage to within 1/2 mile of all city residents in ten years.

The City of Pasadena is committed to improving transit service in order to stem increasing reliance on the automobile. The City has focused on this goal for the past decade with considerable success. Currently, Pasadena is served by more than 25 transit routes with 400 bus stops. The Metro Gold Line light-rail train has 7 major transit stations in the City, linking Pasadena to the regional transit network at Union Station in Los Angeles. With these systems in place, 89% of Pasadena residents live within 1/2 mile of either a train or bus stop. The City is continuing to expand the local transit service, Pasadena ARTS.

Pasadena is working to create incentives for using public transit, especially for housing located within 1/2 mile of transit stations, to support the City's Transit Oriented Development goals.

ACTION 14

Phase down sulfur levels in diesel and gasoline fuels, use advanced emission controls on all public fleets to reduce particulate matter and smog forming emissions from these fleets by 40% in seven years.

The State of California regulates diesel and gasoline fuel and has some of the most stringent requirements in the nation.

Pasadena Public Works Department manages the City's vehicle fleet and is actively committed to the use of cleaner burning fuels and technologies in place of conventional diesel fuel. Bio-diesel fuel which is a blend of regular diesel and organically derived vegetable oils has recently been introduced for use by the City fleet.

The City seeks every opportunity to purchase alternate fuel cars and light-duty trucks, in particular hybrid powered vehicles and is in the process of creating standards for ensuring alternative fuel vehicles are purchased.

The City uses compressed natural gas (CNG) powered vehicles for many of its heavy duty needs, and is installing a CNG fueling facility at the City Yards to support an increasing need for CNG fuel.

ACTION 15

Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by 10% in seven years.

The residents, commuters, and visitors in Pasadena have diverse mobility needs. In addressing these needs, the City has developed proactive policy goals and innovative programs to encourage the most efficient use of the City's existing transportation infrastructure through a balanced multi-modal approach.

The City has commissioned a comprehensive analysis of the City's transportation infrastructure which will offer traffic reduction strategies that consider economic development, accommodate future residential and employment growth, and address overall mobility and access.

The City actively works with new developments to install safe and convenient bicycle parking, encouraging all non-residential developments 25,000 square feet or larger to install showers in buildings to facilitate bicycling. Soon, the Green Building Practices Ordinance will be amended to require projects to not only install bike racks but to provide shower and changing facilities on site. This will increase the opportunities and convenience for bike riders.

ENVIRONMENTAL HEALTH

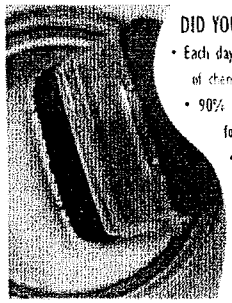
ACTION 16

Every year, identify one product, chemical or compound that is used within the city that represents the greatest risk to human health and replace or eliminate its use by the municipal government.

In response to dangers poised by chemical use, the city will consider banning the use in City facilities 1) aerosols, 2) floor polish, 3) standard volatile organic compound (VOC) emitting paint 4) chemical paint strippers, 5) VOC emitting graffiti removers, 6) toxic chemical disinfectants, and 7) toxic pesticides.

Green procurement practices will be created to ensure that City government workers are not exposed to hazardous chemicals or materials, and that environmentally preferable products are favored in purchasing.

With the City's many parks and open landscaped public areas, pest control is a necessity. However, pesticides can be harmful to those who administer them, as well as the environment. Pasadena will create an integrated pest control management (IPM) plan for all City facilities and parks which will rely on commonsense practices and natural compounds to combat the negative effects of pests.



DID YOU KNOW?

- Each day, the U.S. produces 42 billion pounds of chemicals
- 90% of chemicals are created from fossil fuel
- Many of these commonly used products can cause blindness, burn skin, and, through the skin or inhalation, damage the kidneys, liver, developing fetuses, and the nervous system
- Six out of every 100 janitors have lost-work time injuries each year, including eye injuries or irritations, skin irritations or burns, and respiratory problems resulting from the inhalation of chemical fumes

ACTION 17

Support the public health and economic social benefits of locally grown organic foods. Ensure that 20% of all city facilities (including schools) serve locally grown and organic food within seven years.

Acknowledging the importance of organic foods, Pasadena is investigating the feasibility of requiring City food vendors to provide 20% locally grown organic food for municipal functions. The City plans to educate and train owners of retail food markets and produce trucks about the availability of organic food products through the Public Health Department MAP Campaign. MAP's vision is for the greater Pasadena area to become a healthy, thriving community that values and promotes overall wellness.

Pasadena is also seeking opportunities to create more community gardens where local residents can grow their own vegetables free of pesticides.

ACTION 18

Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by 15% the number of days each year in which the AQI range is "unhealthy" or "hazardous."

Pasadena is creating a plan for analyzing and developing recommendations to improve air quality in the City. Close attention will also be paid to the progress of California Senate Bill 44, which may require local cities to adopt an Air Quality Element as part of their General Plans.

WATER

ACTION 19

Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumptions greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by 10% by 2015.

Over the last ten years, the implementation of aggressive conservation measures has contributed to a decrease in the City's water consumption by almost 7.5%. Pasadena will continue to offer these programs, and develop further innovations to decrease water consumption as follows:

Irrigation Efficiencies - Focus City programs on outdoor water efficiencies, such as weather based irrigation controllers, drought tolerant landscaping and high water usage areas.

Time of Sale Replacement Program - Adopt an ordinance requiring replacement of inefficient plumbing fixtures (toilets, urinals, shower heads, etc.) when properties located in Pasadena change ownership.

Gray Water - Amend the code to allow use of gray water (untreated wastewater salvaged from baths, showers, and clothes washers) for use in irrigation of residential or other landscaping.

Dedicated Landscape Water Meter - Develop a feasibility study for requiring a dedicated water meter for landscape irrigation on properties larger than 15,000 square feet.

Green Building Water Efficiency- Amend the Green Building Practices Ordinance to mandate all applicable projects achieve a water use reduction of 20% over baseline.

Emerging Technologies - Continue working with the Metropolitan Water District to research, develop, and implement existing and emerging water efficiency technologies and strategies that will accomplish the water conservation goals to reduce water consumption by 10% by 2015.

Water Deliveries - All City facilities which previously were provided with private vendor water deliveries are required to use potable water. In the long-term, the City should experience a substantial cost-savings; fewer resources devoted for the production of plastic water containers; and less global greenhouse gas emitted through the container production. Each delivery run reduction in Pasadena helps to reduced traffic congestion and improve air quality.

ACTION 20

Protect the ecological integrity of the city's primary drinking water sources (i.e., aquifers, rivers, lakes, wetlands and watershed ecosystems).

The City of Pasadena obtains water from two sources, groundwater and imported water. Water supply consists of 40% groundwater and 60% imported water, although the exact proportion may vary from year to year. In order to ensure the integrity of the groundwater from Pasadena's aquifers, a perchlorate water treatment plant is being constructed near the City's Corporate Yards.

It is also important to address pollution in Pasadena's parks and watersheds, which feed our groundwater supply. Pasadena is implementing extensive Hahamongna Watershed Park recommendations related to groundwater recharge and water quality, and is proactively engaged in planning efforts with Los Angeles County for the Eaton Canyon watershed preservation, naturalization and groundwater recharge.

Pasadena has taken steps to decrease the volume of wastewater for treatment by encouraging water conservation and offering rebates for waterless urinals, low flow toilets, and other water conserving fixtures.

ACTION 21

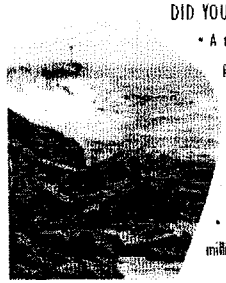
Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by 10% in seven years through the expanded use of recycled water and the implementation of a sustainable urban water shed planning process that includes participants of all affected communities and is based on sound economic, social and environmental principles.

The City considers recycled water as a viable water supply source and effective way to reduce the future need for imported water, and is creating a funding plan to implement the use of recycled water.

CONCLUSION

The Green City Action Plan outlines first steps towards achieving a green and sustainable community. To reinforce the City's commitment to environmental stewardship, the newly formed citizen's Environmental Advisory Commission will monitor the implementation of this plan and guide its progress. Public meetings held by the commission provide an opportunity for interested individuals and groups to express their ideas on related sustainability issues. Be on the lookout for more information in the *Pasadena In Focus* and at the City's Green City website at http://www.ci.pasadena.ca.us

DID YOU KNOW?



- A typical hose nozzle uses 8-18 gallons of water per minute compared to a pressurized water broom of 2-3 gallons per minute
- Typically 50% or more of household water is used for outdoor irrigation
- PWP customers use thirty-two million gallons of water each day

PASADENA GREEN CITY ACTION PLAN REPORT CARD

JANUARY 2007

URBAN ENVIRONMENTAL ACCORD ACTION	ACHIEVED	LIKELY	UNDETERMINED
A. ENERGY			
1. Renewable Energy	✓		
2. Energy Efficiency			✓
3. Climate Change			✓
B. WASTE REDUCTION			
4. Zero Waste		✓	
5. Manufacturer Waste		✓	
6. Recycling	✓		
C. URBAN DESIGN			
7. Green Building	✓		
8. Urban Planning	✓		
9. Environmental Jobs	✓		
D. URBAN NATURE			
10. Green Space Access			✓
11. Tree Canopy		✓	
12. Habitat Protection	✓		
E. TRANSPORTATION			
13. Public Transportation	✓		
14. Clean Vehicles		✓	
15. Traffic Congestion		✓	
F. ENVIRONMENTAL HEALTH			
16. Toxics Reduction		✓	
17. Organic Foods		✓	
18. Air Quality			✓
G. WATER			
19. Potable Water Conservation		✓	
20. Water Source Protection		✓	
21. Waste Water Reduction		✓	
TOTALS	7	10	4

United Nations Green Cities Declaration

URBAN ENVIRONMENTAL ACCORDS

GREEN CITIES DECLARATION

Signed on the occasion of United Nations Environmental Programme World Environment Day [illegible]

RECOGNIZING for the first time in history the majority of the planet's population now lives in cities and that continued urbanization will result in one million people moving to cities each week, thus creating a new set of environmental challenges and opportunities; and

BELIEVING that as Mayors of cities around the globe, we have a unique opportunity to provide leadership to develop truly sustainable urban centers based on culturally and economically appropriate local actions; and

RECALLING that in 1945 the leaders of 50 nations gathered in San Francisco to develop and sign the Charter of the United Nations; and

ACKNOWLEDGING the importance of the obligation and spirit of the 1972 Stockholm Conference on the Human Environment, the 1992 Rio Earth Summit (UNCED), the 1996 Istanbul Conference on Human Settlements, the 2000 Millennium Development Goals, and the 2002 Johannesburg World Summit on Sustainable Development, we see the Urban Environmental Accords described below as a synergistic extension of the efforts to advance sustainability, foster vibrant economies, promote social equity, and protect the planet's natural systems.

THEREFORE, BE IT RESOLVED, today on World Environment Day 2005 in San Francisco, we the signatory Mayors have come together to write a new chapter in the history of global cooperation. We commit to promote this collaborative platform and to build an ecologically sustainable, economically dynamic, and socially equitable future for our urban citizens; and

BE IT FURTHER RESOLVED that we call to action our fellow Mayors around the world to sign the Urban Environmental Accords and collaborate with us to implement the Accords; and

BE IT FUTHER RESOLVED that by signing these Urban Environmental Accords, we commit to encourage our City governments to adopt these Accords and commit our best efforts to achieve the Actions stated within. By implementing the Urban Environmental Accords, we aim to realize the right to a clean, healthy, and safe environment for all members our society.

IMPLEMENTATION & RECOGNITION

THE 21 ACTIONS that comprise the Urban Environmental Accords are organized by urban themes. They are proven first steps toward environmental sustainability. However, to achieve long-term sustainability, cities will have to progressively improve performance in all thematic areas.

Implementing the Urban Environmental Accords will require an open, transparent, and participatory dialogue between government, community groups, businesses, academic institutions, and other key partners. Accords implementation will benefit where decisions are made on the basis of a careful assessment of available alternatives using the best available science.

The call to action set forth in the Accords will most often result in cost savings as a result of diminished resource consumption and improvements in the health and general well-being of city residents. Implementation of the Accords can leverage each city's purchasing power to promote and even require responsible environmental, labor and human rights practices from vendors. Between now and the World Environment Day 2012, cities shall work to implement as many of the 21 Actions as possible. The ability of cities to enact local environmental laws and policies differs greatly. However, the success of the Accords will ultimately be judged on the basis of actions taken. Therefore, the Accords can be implemented though programs and activities even where cities lack the requisite legislative authority to adopt laws.

The goal is for cities to pick three actions to adopt each year. In order to recognize the progress of cities to implement the Accords, a City Green Star Program shall be created.

At the end of the seven years the city that has implemented:

19-21	ACTIONS		CITY
16-18	ACTIONS		CITY
12-15	ACTIONS		CITY
8-11	ACTIONS		CITY

ENERGY

Renewable Energy • Energy Efficiency • Climate Change

ACTION 1
Adopt and implement a policy to increase the use of renewable energy to meet ten per cent of the city's peak electric load within seven years.
ACTION 2
Adopt and implement a policy to reduce the city's peak electric load by ten per cent within seven years through energy efficiency, shifting the timing of energy demands and conservation measures.
ACTION 3
Adopt a citywide greenhouse gas reduction plan that reduces the jurisdiction's emissions by twenty-five per cent by 2030, and which includes a system for accounting and auditing greenhouse gas emissions.

WASTE REDUCTION

Zero Waste • Manufacturer Responsibility • Consumer Responsibility

ACTION 4
Establish a policy to achieve zero waste to landfills and incinerators by 2040.
ACTION 5
Adopt a citywide law that reduces the use of a disposable, toxic, or non-renewable product category by at least fifty percent in seven years.
ACTION 6
Implement "user-friendly" recycling and composting programs, with the goal of reducing by twenty per cent per capita solid waste disposal to landfill and incineration in seven years.

URBAN DESIGN

Green Building • Urban Planning • Slums

ACTION 7
Adopt a policy that mandates a green building rating system standard that applies to all new municipal buildings.
ACTION 8
Adopt urban planning principles and practices that advance higher density, mixed use, walkable, bikeable and disabled accessible neighborhoods which coordinate land use and transportation with open space systems for recreation and ecological restoration.
ACTION 9
Adopt a policy or implement a program that creates environmentally beneficial jobs in slums and/or low-income neighborhoods.

URBAN NATURE

Parks • Habitat Restoration • Wildlife

ACTION 10
Ensure that there is an accessible public park or recreational open space within half-a-kilometer of every city resident by 2015.

ACTION 11

Conduct an inventory of existing canopy coverage in the city; and, then establish a goal based on ecological and community considerations to plant and maintain canopy coverage in not less than fifty per cent of all available sidewalk planting sites.

ACTION 12

Pass legislation that protects critical habitat corridors and other key habitat characteristics (e.g. water features, food-bearing plants, shelter for wildlife, use of native species, et.) from unsustainable development.

TRANSPORTATION

Public Transportation • Clean Vehicles • Reducing Congestion

ACTION 13

Develop and implement a policy which expands affordable public transportation coverage to within half-a-kilometer of all city residents in ten years.

ACTION 14

Pass a law or implement a program that eliminates leaded gasoline (where it is still used); phases down sulfur levels in diesel and gasoline fuels, concurrent with using advanced emission controls on all buses, taxis, and public fleets to reduce particulate matter and smog-forming emissions from those fleets by fifty per cent in seven years.

ACTION 15

Implement a policy to reduce the percentage of commute trips by single occupancy vehicles by ten per cent in seven years.

ENVIRONMENTAL HEALTH

Toxics Reduction • Healthy Food Systems • Clean Air

ACTION 16

Every year, identify one product, chemical or compound that is used within the city that represents the greatest risk to human health and adopt a law and provide incentives to reduce or eliminate its use by the municipal government.

ACTION 17

Promote the public health and environmental benefits of supporting locally grown organic foods. Ensure that twenty per cent of all city facilities (including schools) serve locally grown and organic food within seven years.

ACTION 18

Establish an Air Quality Index (AQI) to measure the level of air pollution and set the goal of reducing by ten per cent in seven years the number of days categorized in the AQI range as "unhealthy" or "hazardous."

WATER

Water Access & Efficiency • Source Water Conservation • Waste Water Reduction

ACTION 19

Develop policies to increase adequate access to safe drinking water, aiming at access for all by 2015. For cities with potable water consumptions greater than 100 liters per capita per day, adopt and implement policies to reduce consumption by ten per cent by 2015.

ACTION 20

Protect the ecological integrity of the city's primary drinking water sources (i.e., aquifers, rivers, lakes, wetlands and associated ecosystems).

ACTION 21

Adopt municipal wastewater management guidelines and reduce the volume of untreated wastewater discharges by ten per cent in seven years through the expanded use of recycled water and the implementation of a sustainable urban watershed planning process that includes participants of all affected communities and is based on sound economic, social and environmental principles.

URBAN ENVIRONMENTAL ACCORDS

1. What are the Urban Environmental Accords?

Recognizing that majority of the world's population now reside in cities, and that cities consume 75% of the world's natural resources, the City of San Francisco, as host city of the United Nations World Environment Day 2005, selected "Green Cities" as the unifying theme for the event and developed the Urban Environmental Accords, a set of 21 action steps that intends to address the special environmental challenges and opportunities of cities everywhere. Given the unique capacity of mayors to initiate and steer initiatives that produce immediate and direct outcomes, mayors are recognized as excellent change agents for making urban communities into models of sustainable development. It is for this reason that mayors from all over the world came to San Francisco on June 1-5, 2005 to share ideas and discuss solutions to universal urban environmental issues on energy, waste reduction, urban design, urban nature, transportation, environmental health, water.

2. What is the goal of the Urban Environmental Accords?

The Urban Environmental Accords are a series of implementable goals that can be adopted at the city level to achieve urban sustainability, promote healthy economies, advance social equity and protect the world's ecosystem. By achieving success at the city level, the multilateral city commitments of the Urban Environmental Accords can inspire and mobilize expanded commitment at the national level. The Urban Environmental Accords build on and continue the legacy of the 1972 Stockholm Conference on the Human Environment, the 1992 Rio Earth Summit, the 1996 Istanbul Conference on Human Settlements, the 2000 Millennium Development Goals and the 2002 Johannesburg World Summit on Sustainable Development

3. How do cities adopt the Accords?

Implementing the Urban Environmental Accords will require open and active participatory dialogue between the cities, residents, community groups, businesses, academic institutions and other stakeholders. At the end of seven years, a city that has implemented 19-21 Action Steps will be recognized as a 4-Star City, a 3-Star City for 15-18 Action Steps, a 2-Star City for 12-17 Action Steps and a 1-Star City for 8-11 Action Steps.

4. Some of the goals appear too high, unrealistic or may not necessarily apply to every city. How do cities handle the implementation process?

The 21 Action Steps of the Urban Environmental Accords are a series of action-oriented steps that cities can use as reference points for setting achievable goals and standards that can be tailored to fit the specific structures of their communities. The ability of cities to enact local environmental laws and policies differ from cities to cities. However, the success of the Accords will ultimately be judged on the basis of actions taken collectively. Accordingly, the Accords can be implemented through programs, services or activities even where cities may lack the requisite legislative authority to mandate laws.

5. How will implementing these goals result in cost savings?

Measures that support the sustainable utilization and management of energy, urban design, waste reduction, urban nature, transportation, environmental health and water resources often result in reduced resource consumption and improvements in the general health and economic wellbeing of cities. Adopting the Accords can leverage a city's purchasing power and promote the advancement of environmentally sound practices.

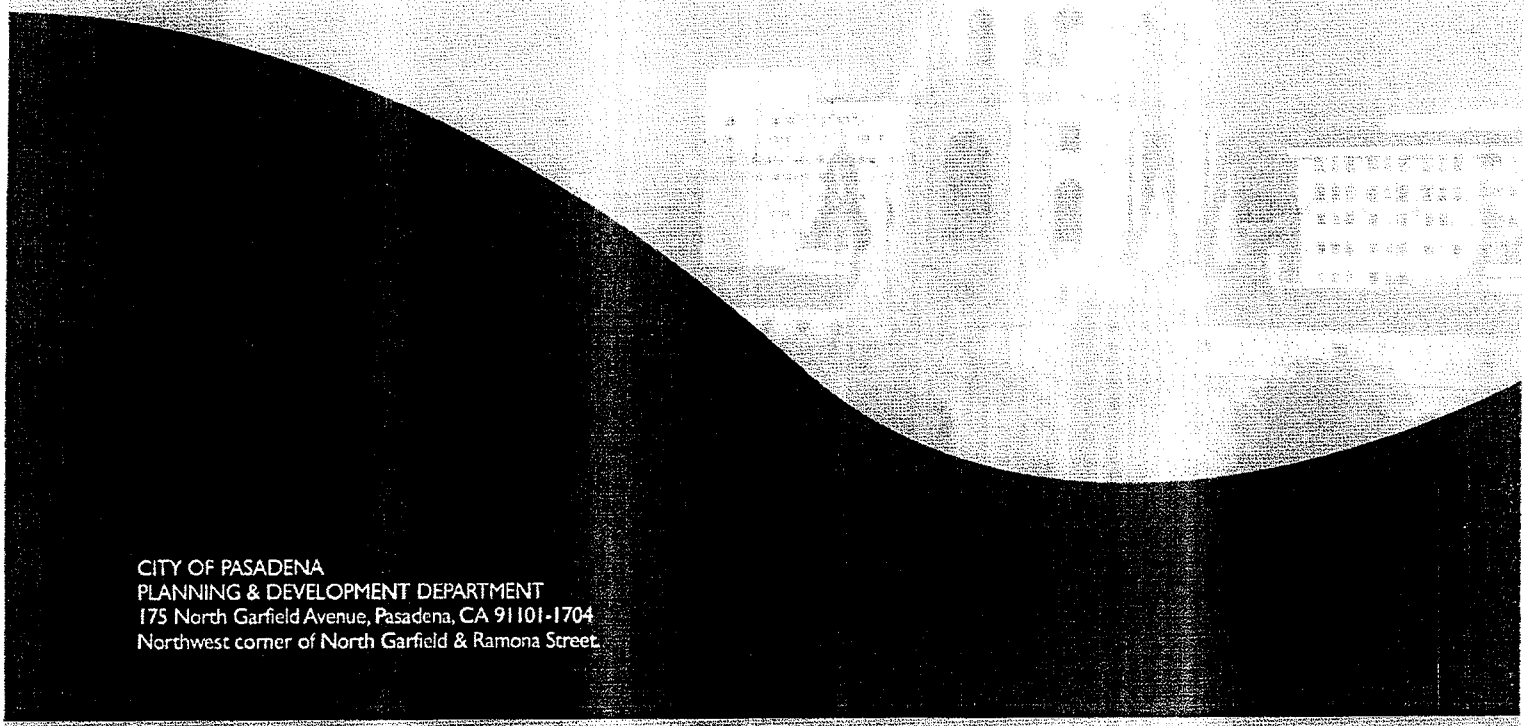
6. Who will monitor progress and enforcement?

City mayors may appoint a special city council, city department or advisory group that will work with the mayor in setting goals and oversee the implementation process. In many instances, the Accords can be integrated as part of the city's long-term Sustainability Plan. We will also be working very closely with the International Council of Local Environmental Initiatives (ICLEI) and their partners to implement the Accords.

7. Is there a follow-up session to report and discuss the cooperative progress achieved by all signatory cities?

In 2012, seven years after the initial signing of the Urban Environmental Accords, a United Nations conference will discuss the progress of each city in implementing the Accords. Additional information regarding the Accords is available on www.wed2005.org and questions can be directed at accords@sfenvironment.com.

PASADENA



CITY OF PASADENA
PLANNING & DEVELOPMENT DEPARTMENT
175 North Garfield Avenue, Pasadena, CA 91101-1704
Northwest corner of North Garfield & Ramona Street.

City of Pasadena.NET

PASADENA
Planning & Development

Green Building Program

Printer Friendly

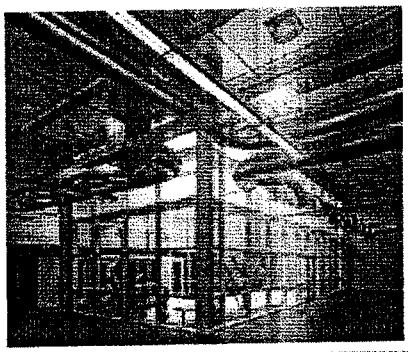
city of pasadena
green city home page
green building program
green calendar & workshops
water & power green programs
green team
green contacts, links & documents
commissions & meetings

PASADENA
THINK GREEN

Green Building Design
Green Building Initiation
Green Building Ordinance
Rating a Building's Greenness -LEED
Green Building Project Requirements
Green Building Incentives
Green Building Outreach and Education

Green buildings require the use of fewer natural resources and provide a healthy, productive indoor environment for occupants by using an integrated design approach that incorporates:

- Site Planning
- Design
- Building Preservation
- Construction
- Operations
- Maintenance



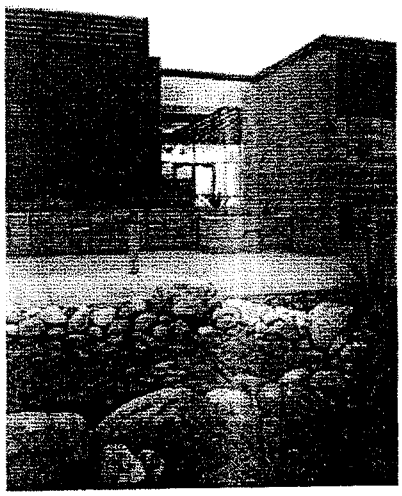
GREEN BUILDING DESIGN

THINK GREEN

Early in the design process the entire life-cycle of the building and its components are considered, as well as the economic and environmental impact and performance. The project team looks at all aspects of the building design to make a conscious assessment of how to lessen the environmental impacts associated with the project. The design team may include:

- Owner/Developer
- Architect
- Engineers (structural, electrical, mechanical)
- Landscape architect
- Interior designer
- Contractor (general & subs)
- Major tenants
- Building operator

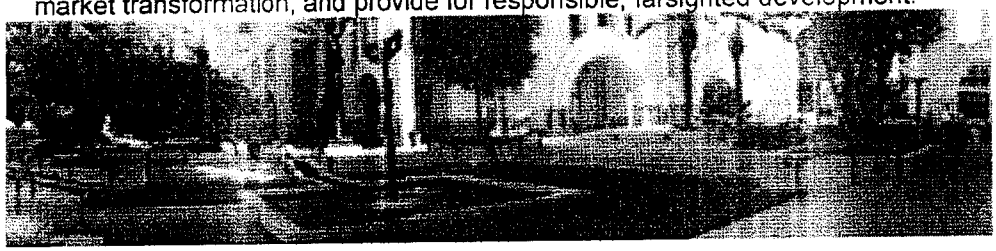
Increasingly, designers, builders, and property owners are becoming interested and involved in green building as the



benefits become readily apparent. Benefits of building green include:

- More natural resources for the future
- Reduced energy consumption
- Improved occupant health
- Increased revenue
- Lower operating costs
- Increased employee productivity
- Reduced liability

Green buildings can ultimately result in enhanced economic affairs, lead to market transformation, and provide for responsible, farsighted development.



Did You Know?

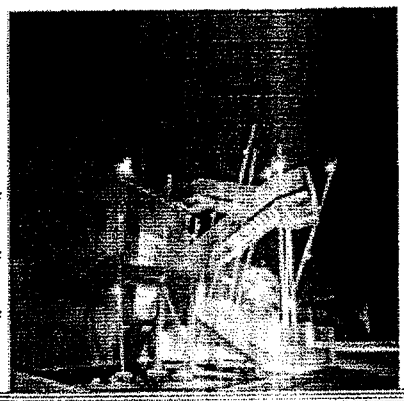
Environmental impacts associated with buildings include:

70% of total U.S. electricity consumption

GREEN BUILDING INITIATION

THINK GREEN

Realizing that Pasadena's rich architectural fabric and community livability should be complimented with environmentally sound buildings, the City pursued the development of a green building program focused on new development.



In early 2005, Pasadena retained the services of a green building expert; reviewed existing City regulations; analyzed building activity; examined other jurisdictions' environmental programs; and solicited advice from development groups with the goal of having a green building program approved by year end. A green ribbon committee of industry and community stakeholders was formed to provide guidance. As a result of these efforts, on December 19, 2005 (view

staff report), the Pasadena City Council unanimously approved a green building program with three components:

1. green building ordinance
2. incentives, and
3. outreach & education

As stated by Pasadena Mayor Bill Bogaard,

"Pasadena is a city that is committed to creating a livable community and our green building policies are intended not only to be efficient so that they are profitable but also so they are protective of the environment."

Remarks of Mayor Bill Bogaard
Pasadena's Green Building Program
October 20, 2005

GREEN BUILDING ORDINANCE

THINK GREEN

Effective as a permanent city policy on April 15, 2006, the City Council approved a set of progressive green building regulations for public and private sector buildings – Pasadena Municipal Code Chapter 14.90 Green Building Practices Ordinance.

Buildings required to comply with **Chapter 14.90** include:

- municipal buildings of 5,000 square feet or more of new construction
- non-residential buildings with 25,000 square feet or more of new construction
- tenant improvements of 25,000 square feet or more
- mixed use and multi-family residential buildings four stories in height or more

These thresholds were chosen as they represent a majority of construction projects in Pasadena and coincide with thresholds for other mandatory City reviews.

As part of a greater city sustainability program, in April 2008, the City Council plans on evaluating the effectiveness and success of the Green Building Practices Ordinance and may consider lowering the thresholds.

GREEN BUILDING BROCHURE (7mb)

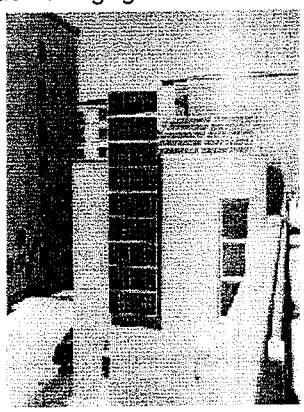
RATING A BUILDING'S 'GREENNESS' - LEED

THINK GREEN

To measure a building's "greenness" in a fair and consistent manner, the Green Building Practices Ordinance adopts by reference the US Green Building Council's

Leadership in Energy and Environmental Design (LEED™) green building rating system.

Compelling reasons for selecting LEED over other green guidelines, and in lieu of creating separate guidelines for Pasadena, include LEED's recognition as a national green building rating system, its flexibility, and its integrated approach to achieving "greenness."



LEED awards points to buildings based on five main categories:

1. Sustainable site planning
2. Safeguarding water and water efficiency
3. Energy efficiency and renewable energy
4. Conservation of materials and resources
5. Indoor environmental quality

For more about the US Green Building Council and LEED go to http://www.usgbc.org/

Click here for information on the LEED green building rating system and portfolio of the green checklists.

GREEN BUILDING PROJECT REQUIREMENTS

THINK GREEN

The following steps are provided to assist in the review and approval of a project with a building that meets one of the Green Building Practices ordinance thresholds:

Pre-Plan Check Steps:

1. Retain the services of a LEED Accredited Professional as part of the design team
2. Register the building with the USGBC
3. Discuss City requirements and plan review procedures with the City's LEED AP consultant
4. Obtain City forms for LEED review at the Permit Center or online

Initial Plan Check Submittal (typical turn around time 30 days)

1. Incorporate the applicable LEED checklist as a sheet in the plan sets indicating points meeting at a minimum LEED Certified level (LEED checklist must be signed and dated by the project LEED AP). Provide a three point margin for credits that might be compromised during construction.
2. Submit required number of plans for review (the City's LEED AP consultant will receive one set of plans)
3. Submit one set of documents in support of LEED credits (e.g. Title 24 modeling, specifications, LEED templates or access to LEED templates on line)
4. Submit the appropriate Pasadena LEED checklist:

LEED NC	PDF	Excel
LEED CS	PDF	Excel
LEED CI	PDF	Excel

Note:

- All building documents must indicate in the general notes, specifications, and/or individual detail drawings, where feasible, the green building measures employed to attain the applicable LEED rating.
- Plans submitted that do not provide the required information for green building review will be returned as incomplete.

Plan Check Corrections:

1. Upon completion of the Green Building review, the city's LEED consultant will provide comments on why or why not the LEED points indicated have been approved on the Pasadena Plan Check LEED checklist reference guide.
2. If the minimum number of points have not been approved the applicant must make corrections and submit for re-check (typical turn around time 14 days).
3. If the project passes Green Building review and no changes to the points will be impacted by any other department corrections, the project can submit for final sign off (FSO).

Final Sign-Off

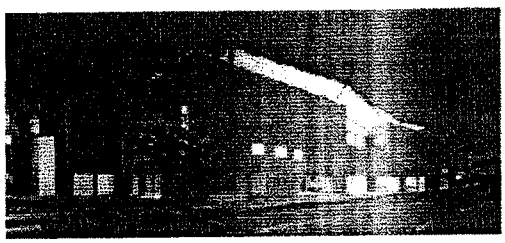
1. The City's LEED AP will review the plans and sign-off if no changes have been made to the project (typical turn around time seven days)
2. The City will retain a hard copy of the project's LEED templates for its record.

Construction:

1. The City's Building inspectors will perform normal building inspections.
2. It is the applicant's responsibility to notify the city of changes in the field that impact LEED points and to seek remedial action and city approval immediately.
3. If discrepancies or changes to LEED credits occur during construction the City may issue a stop-work order if the project LEED points are below the minimum number (the City recommends a three point margin to avoid this situation).

Guidelines

A green building development guide with graphics and sample templates will soon be available to assist project applicants with understanding the LEED requirements applicable to Pasadena.



Permit Center Plans submittal checklists

GREEN BUILDING INCENTIVES THINK GREEN

As an incentive to building green, the City offers LEED Accredited Professional experts to guide new projects through the green building review at no cost to the project applicant. For more information on this program contact a plans examiner at the City's Building Division - 626 744 4200.

After a building is completed, the

City offers $1,000 rebates for each affordable housing unit provided in a green building. This is above and beyond other affordable housing incentives offered by the City.

The City's Water and Power Department offers a variety of incentives, assistance, and rebates for green buildings and energy and water saving features.

GREEN BUILDING OUTREACH AND EDUCATION

THINK GREEN

To increase the commercial sector and the general public's awareness of green choices available, the City is offering an informative series of green workshops beginning in Winter 2007 conducted by a leading green building expert, culminating with a tour of City green buildings. See Green Building Workshops for more information on the Green Building Seminar Series.

Green resource guides and green building displays are also available at the City's Permit Center.

A GREEN & SUSTAINABLE COMMUNITY

THINK GREEN

Last Updated 11/20/2007

175 North Garfield Avenue, Pasadena CA 91109 (626) 744-4009

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.010 Short title.

This chapter shall be known as the "green building practices ordinance." (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.020 Purpose.

The city recognizes that building construction, maintenance and operations consume resources which have a direct impact on the public welfare and the natural environment. Therefore, it is the purpose of this chapter to:
A. Enhance the public welfare and assure that civic and private sector development is consistent with the city's desire to create a more sustainable community by incorporating green building measures into the design, construction, and maintenance of buildings;
B. Improve the health of residents, visitors, and workers by counteracting negative environmental impacts associated with building construction and occupation;
C. Promote development that fosters sustainable sites, improves energy and resource efficiency, decreases waste and pollution generation, and improves the health and productivity of a building's occupants over the life of the building. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.030 Definitions.

For the purposes of this chapter, the following words and terms are defined as follows:
A. "Applicant" means any individual, person, firm, limited liability company, association, partnership, political subdivision, government agency, municipality, industry, public or private corporation, or any other entity filing an application in compliance with this chapter who is:
1. The owner or lessee of property;
2. A party who has contracted to purchase property contingent upon that party's ability to acquire the necessary approvals required for that action in compliance with the zoning code, and who presents written authorization from the property owner to file an application with the city; or
3. The agent of either of the above who presents written authorization from the property owner to file an application with the city.
B. "Building" means any structure used for support or shelter of any use or occupancy, as defined in the California Building Standards Code.
C. "City" means the city of Pasadena.
D. "City building" means a building which was built for use by the city or which is located on city-owned land.
E. "Construction" means the building of any building or structure or any portion thereof.
F. "Green building compliance official" means the director of planning and development or his/her designee.
G. "Gross floor area" means the total enclosed area of all floors of a building measured to the inside face of the exterior walls including halls, stairways, elevator shafts at each floor level, service and mechanical equipment and mechanical equipment rooms and basement or attic areas having a height of more than seven feet, but excluding area used exclusively for vehicle parking or loading.
H. "LEED™ accredited professional" means a person who is recognized by the United States Green Building Council as having the knowledge and skills necessary to participate in the design process, to support and encourage integrated design, and to streamline the LEED™ project application and certification process.
I. "LEED™'s Green Building Rating System (Rating System)" means the Leadership in Energy and Environmental Design Green Building Rating System approved by the United States Green Building Council (USGBC) and as that Rating System may be amended from time to time by the USGBC.
J. "LEED™'s checklist" means the credit and point checklists developed by the Leadership in Energy and Environmental Design Green Building Rating System for measuring the sustainability, efficiency, and environmental soundness of a building.
K. "Mixed-use project" shall have the definition as set forth in the city's zoning code.
L. "Multi-family residential" shall have the definition as set forth in the city's zoning code.
M. "Story" shall have the definition as set forth in the city's zoning code.
N. "Tenant improvement" means any improvement which requires a permit pursuant to the California Building Code. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.040 Applicability.

A. Projects meeting the following thresholds shall comply with the provisions of this chapter:
1. City buildings of 5,000 square feet or more of new gross floor area;
2. Nonresidential buildings of 25,000 square feet or more of new gross floor area;
3. Tenant improvements of 25,000 square feet or more of new gross floor area and requiring a building permit as determined by the building official or designee;
4. Mixed-use projects and multi-family residential projects that include a residential building which has four stories in height, or more, of new construction. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.050 Standards for compliance.

A. The city shall adopt by reference the United States Green Building Council LEED™ (Leadership in Energy and Environmental Design) Green Building Rating System as the standard for which a project shall be measured as a green building. The specific actions required for project compliance with this chapter are as follows:

1. All applicable projects are required to retain the services of a LEED™ accredited professional and complete LEED™ project registration prior to issuance of a building permit.
2. All applicable projects shall submit a LEED™ checklist and supporting documentation indicating points meeting at a minimum LEED™ "certified" level incorporated into documentation for a building permit. The LEED™ checklist shall be prepared, signed, and dated by the project LEED™ accredited professional. All building documents shall indicate in the general notes and/or individual detail drawings, where feasible, the green building measures employed to attain the applicable LEED™ rating.
3. Applicable city buildings are required to attain LEED™ certification and meet, at a minimum, LEED™ certified level.
4. Building commissioning, although specified as a prerequisite for LEED™ certification, is not required for applicable projects under this chapter except for city buildings. Applicants are encouraged to verify that fundamental building systems are designed, installed, and calibrated to operate as intended. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.060 Compliance.

The green building compliance official shall:
A. Verify LEED™ project registration and review the required LEED™ checklist and supporting documentation prior to issuance of a grading or building permit.
B. Verify that the building measures and provisions indicated on the project LEED™ checklist and on the supporting approved documentation, including approved plan sets, are being implemented at foundation inspection, framing inspection, and prior to issuance of a final certificate of occupancy.
C. Conduct any inspection as needed to ensure compliance with this chapter. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

Title 14 BUILDINGS AND CONSTRUCTION*

Chapter 14.90 GREEN BUILDING PRACTICES

14.90.070 Penalties and administrative remedies.

A. If, as a result of any inspection, the green building compliance official determines that the applicable project does not comply with the approved documentation, a stop work order may be issued. At the discretion of the green building compliance official, such a stop work order may apply to the portion of the project impacted by noncompliance or to the entire project. The stop work order shall remain in effect until the green building compliance official determines that the project is in compliance with the requirements of this chapter or meets the requirements of subsection B of this section.

B. If the green building compliance official determines that the applicable project has not met the requirements of the LEED™ checklist, as set forth in Section 14.90.060 of this chapter, he or she shall determine on a case-by-case basis whether the applicant has made a good faith effort to comply with this chapter. In making this determination, the green building compliance official shall consider the availability of markets for materials to be recycled, the availability of green building materials and technologies, and the documented efforts of the applicant to comply with this chapter. The green building compliance official may require additional reasonable green building measures be included in the operation of the covered project to mitigate the failure to comply fully with this chapter. (Ord. 7031 § 2 (part), 2006)

<< previous | next >>

AGENDA REPORT

Meeting Date: May 20, 2008

Item Number: D-3

To: Honorable Mayor & City Council

From: Jonathan Lait, AICP, City Planner
George Chavez, City Building Official
Azita Motamen, AIA, Plan Review Architect
Donna Jerex, Senior Planner

Subject: AN ORDINANCE OF THE CITY OF BEVERLY HILLS ADOPTING A GREEN BUILDING ORDINANCE AND AMENDING TITLE 10 OF THE BEVERLY HILLS MUNICIPAL CODE.

Attachments:

1. Proposed Ordinance
2. Planning Commission Resolution No. 1514
3. Proposed City of Beverly Hills Green Building/Sustainability Checklist
4. Planning Commission Report dated May 8, 2008

RECOMMENDATION

Staff recommends that the City Council introduce and conduct a first reading of a proposed ordinance amending the City's Zoning Code (Title 10) to establish a Green Building Program and new building standards for certain commercial, mixed-use and multi-family housing projects. Staff further recommends adoption, by resolution, of a green building checklist and thresholds for application of the new green building standards.

INTRODUCTION

Attached for the City Council's consideration is a proposed Ordinance amending the Zoning Code to establish a Green Building Program for the City of Beverly Hills. This program, which was discussed by the Planning Commission on April 24, 2008 and May 8, 2008, is modeled after the US Green Building Council's Leadership in Energy and Environmental Design (LEED) program. The Beverly Hills Green Building Program has

been adapted from the LEED model to be consistent with local policy objectives and program goals and does not require costly LEED certification.

The proposed Green Building Program is a mandatory, performance-based, point-scaled program to achieve the following environmental sustainability goals articulated by the City Council last year:

- Encourage water, energy and resource conservation
- Reduce waste generated by construction projects
- Increase energy efficiency in buildings
- Promote health of residents, workers, and visitors
- Reduce greenhouse gas generated by building use
- Reduce the City of Beverly Hill's carbon footprint

The proposed point system was developed through a cooperative effort by the City's Building/Safety and Planning Divisions and Public Works Departments and is based on the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system. Projects subject to the program would be evaluated and certified for compliance by the City's Building and Safety Division.

BACKGROUND

The program began as a result of direction from the Council to bring forward a green building ordinance that would apply to all commercial, mixed-use and multi-family development. The Green Building Program has been before the City Council, Planning and Public Works Commissions as study session discussions.

Planning and Public Works Commissions: 2007

This item was separately reviewed by the Planning and Public Works Commissions on May 10, 2007. That presentation included a discussion of both the purpose and scope of the ordinance and a basic outline of the Green Building Program.

Presenters at the Planning Commission study session included representatives from the City's Building and Safety Division as well as the City of Santa Monica's Environmental Programs Division. Green building programs were discussed with special application to the City of Beverly Hills.

City Council: 2007

The City Council discussed the green building program concept on August 7, 2007. At that meeting, the Council provided direction to bring an ordinance forward that requires green building standards for all commercial, mixed-use, and multi-family projects. Moreover, the Council directed that a points-based system be used that reflected the nationally accepted LEED standards but that did not require LEED certification. Instead the City would review projects and self-certify based on a Checklist outlining the rating system (Attachment 3). There was an expressed desire to develop a program that could become a standard for other communities. Additionally, at a follow up session on March

2008, the Council requested that the program for the City of Beverly Hills include a requirement for photovoltaic systems.

Planning Commission: 2008

In April and May of 2008, the Planning Commission discussed three additional issues:

- Program applicability (Program not applicable to applications submitted earlier than 60 days after the effective date of the ordinance)
- Appropriate Green Building Standards and Ratings (the Checklist includes thresholds for project square footage, photovoltaic requirements and a Title 24 +15% requirement)
- Changes to the Checklist and incorporation of other Energy and Water Efficiency Systems including energy star appliances and gray water systems

These issues are more fully described in the attached May 8, 2008 Planning Commission Staff Report (Attachment 4). At that meeting, the Commission voted 4-0 to recommend City Council adoption of the ordinance as attached hereto. It should be noted that the attached ordinance has been revised by the City Attorney's Office to incorporate comments made by the Commission at the May 8, 2008 meeting as well as to address formatting and readability issues.

DISCUSSION

"Green" construction is the practice of designing, constructing, operating, maintaining, and even removing buildings in ways that conserve natural resources and reduce impacts on air quality and climate change. Green construction practices are implemented through the use of building standards, which are often referred to as "*green building standards*" that encourage energy use and conservation, and indirectly reduce air pollution and improve air quality.

Green Building Programs Reviewed

A number of existing green building programs at the State and local level were reviewed in the process of developing the City's green building program. All programs surveyed were for commercial, mixed-use, and multi-family development and almost all of the programs were mandatory.

Regulatory Approaches Reviewed

There is more than one approach available for measuring green building design. Three approaches (LEED, Build it Green, and Energy Star) were reviewed in developing the proposed green building program. Although all three address green building standards, each one does this in a slightly different way. Each of these is discussed below.

1. LEED Rating System (Leadership in Energy and Environmental Design)

The U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) system is recognized nation-wide and is the leading green building rating system. LEED is the industry standard for commercial, mixed-use and multi-family construction and promotes energy, water and materials conservation; environmentally preferred products and practices; improvements in human health,

comfort and productivity; and reductions in facility operation costs and environmental impacts.

In order to achieve a specific rating level, a project needs to incorporate a specific number of items from the checklist. Developers are allowed to choose options that will work best for the project provided that the necessary number of points is attained. The checklist is based on tiered levels of compliance - Platinum (highest), Gold, Silver, and Certified. Building designers have the option of progressively choosing items from different categories to obtain the points to meet necessary levels.

To assist the development community in meeting the requirements of LEED, the U.S. Green Building Council provides training in LEED and there are numerous LEED accredited professionals in the greater Los Angeles area.

The disadvantages of LEED are its costs to have a building be LEED certified and the certification process significantly trails behind the City's own inspection process causing delays in the issuance of a certificate of occupancy. The advantages of LEED are that the building would be certified and comply with the nation's green building program.

2. *Build It Green*

Build It Green is a non-profit membership organization based in California that promotes healthy, energy- and resource-efficient building practices. The Build It Green program is prescriptive-based, and uses a point rating system similar to the LEED rating system, but the evaluation criteria is less technical. The Build It Green point rating system however, addresses the construction and renovation of single-family and multi-family homes, but not commercial development. Build It Green provides a certification process and project certification is required by independent Built-it-Green raters similar to the LEED system.

The costs associated with this program are more reasonable and certification tracks better with the City's inspection process. However, its limited applicability at this time to single family developments is not readily transferable to more complex commercial and mixed-use developments; projects the City Council is seeking to address with a green building program.

3. *Energy Star*

The Federal Environmental Protection Agency (EPA) administers the Energy Star program. The Energy Star Program is applicable to both commercial and residential construction. Using the Energy Star approach, an optimal energy use target is identified and the building is designed to meet or exceed that target. "Designed to Earn the Energy Star" is a certification process administered by the EPA. Buildings eligible for "Designed to Earn the Energy Star" use less energy than conventional buildings.

Costs associated with this program are reasonable and the inspection process is straightforward. However, the Energy Star approach only focuses on energy

conservation and does not have the benefit of providing a broader spectrum of green building practices; an important direction-setting goal established by the City Council.

City of Beverly Hills Proposed Green Building Program
An alternative to the three programs studied is to establish the City's own green building a program that allows the City to self-certify projects. Staff's proposed Green Building Program is consistent with Council direction in that it is a point system based on LEED standards, but certified by the City. The point system models the LEED tiered levels of compliance - Platinum (highest), Gold, Silver, and Certified.

There was a desire on behalf of both the Planning Commission and City Council for the program to go beyond LEED's minimum requirements. The proposed program adds two important requirements to the LEED standards:

1. Solar (photovoltaic) panels must be incorporated into all new construction and major renovation projects
2. Title 24 (State Energy Code) must be exceeded by 15%

How Would the Program Work?
Administration of the Green Building Program would be performed by trained City staff. Developers would be required to retain the services of a certified green building professional to assure compliance with the program and proper integration of green building standards.

The program would apply to all commercial, mixed-use or multi-family development and renovation projects that qualify based on established thresholds. Participation in the Green Building Program is based on the gross amount of square footage of new construction and does not include any existing portion of a building that is not being remodeled. All new construction would be required to exceed Title 24 requirements by at least 15% and include active solar energy systems (photovoltaics).

The following chart summarizes the proposed requirements:

GREEN BUILDING THRESHOLD REQUIREMENTS

Building or Addition Size (square feet)	Green Building Standard Required	Comply with Title 24 +15%	Photovoltaic (solar panels)	Points Required
>50,000 sq. ft. only if a General Plan Amendment is required for the project	Gold	Yes	Required	39 - 51
>25,000 sq. ft.	Silver	Yes	Required	33 - 38
	Certified if land is vacant	Yes	Required	26 - 32
10,000 sq. ft. to 24,999 sq. ft.	Certified	Yes	Required	26 - 32
<10,000 sq. ft.	Certification not required	Yes	Required	No points required. (Relies on Title 24 requirements.)

In many ways, the proposed program goes beyond the standards set forth in other communities. In that Beverly Hills Green Building Program has a required checklist that imposes mandatory standards, not optional, as well as requiring additional energy saving techniques that go beyond national standards, attests to this program's progressiveness.

The green building industry continues to evolve with more venders providing sustainable products, continuously-improving technology, and applying sensible planning principles in designing a building. While earlier projects were supported financially by municipal agencies, non-profits and other organizations, a greater number of private developments are increasingly incorporating green standards due to improved access and availability of materials and reduced costs. Similar to Beverly Hills, other municipalities are beginning to establish certain standards to meet specific goals. As mentioned earlier, many of these programs are not mandatory.

There are several reports and case studies that provide general information regarding the cost of constructing a green building. These studies, however, do not necessarily provide transferable analysis to Beverly Hills as those studies may address different land uses to be designed in the building, the amount of land area available for siting and redevelopment, access or limited access to transportation, or other comparable development standards such as height.

What is available to evaluate are general ranges of increased soft and hard costs associated with green building construction. Industry documents suggest, based on the US Green Building Council's Leadership in Energy and Environmental Design ratings for a Certified, Silver, Gold and Platinum projects cost of construction increases for each level as shown below:

Rating	Approximate Construction Cost Increase*
Certified	3 %
Silver	6 %
Gold	9 %
Platinum	15 %

*Representation of average soft and hard construction cost for each certification level

The proposed standards were determined based on a considerable amount of published industry work and research associated with achieving a LEED Silver or Certified rating. The recommended building thresholds correspond to generalized information in industry reports and based on how other communities are addressing green building standards. Staff has determined that construction projects can reasonably meet the City's green building objectives without significantly affecting financial return.

Rating System

The rating system proposed on the Checklist (Attachment 3) is divided into six categories. A project would receive points based on meeting the requirements of the options provided in each category. There are minimum amount of established points