Memorandum

Planning Division
Community & Economic Development
Department

To: Planning Commission Members

From: Orion Goff, Building Official

Nole Walkingshaw, Senior Planner

Date: August 13, 2008

Re: Executive Order, LEED and Energy Star; Expedited Plan Review for New Constriction and Major Renovation Projects

Discussion:

Mayor Ralph Becker is developing an Executive Order for the expedited plan review for new construction and major renovation projects that meet certain sustainable building criteria. The purpose of this Executive Order is to incentivize "Green" building for developers who agree in advance to meet and/or exceed the "Silver" level of LEED certification or achieve the standards required for an ENERGY STAR rating for homes. Mayor Becker is expected to sign the Executive Order on or about August 28, 2008.

Your comments and/or recommendations regarding this are appreciated; thank you for taking the time to review this information.

Draft Executive Order:

Approved as to Form
Salt Lake City Attorneys Office
By:_____
Date:_____

EXECUTIVE ORDER

EFFECTIVE DATE: _____, 2008

SUBJECT: **EXPEDITED PLAN REVIEW FOR NEW CONSTRUCTION AND MAJOR RENOVATION PROJECTS THAT MEET CERTAIN SUSTAINABLE BUILDING CRITERIA**

DISTRIBUTION: **ALL DEPARTMENTS**

AUTHORITY SIGNATURE: _____ _____
RALPH BECKER, MAYOR **DATE**

Introduction: LEED and ENERGY STAR Play an Important Role in Energy Conservation in the City:

The Leadership in Energy in Environmental Design (LEED) rating system is a system created by the United States Green Building Council (USGBC), of which Salt Lake City Corporation (City) is an active member, to provide a national standard for healthy environmental and energy efficient design. Various local stakeholders, including architects, planners, environmental consultants, professors, political leaders, energy experts, health officials, and City staff members worked with the City to review the LEED rating system.

Presently, LEED offers four (4) levels of certification: "Certified," "Silver," "Gold," and "Platinum." The standards comprising these different levels are considered to promote a healthy environment, provide long-term cost benefits through efficient use of energy, optimize building performance, and create healthier workplaces for employees and visitors. A project can earn points in each of these areas and the number of points

earned determines which of the four levels the project will attain. The City has determined that adherence to LEED standards in certain circumstances is in the best interest of the City by obtaining the energy efficient benefits promoted by those standards.

The Energy Star Program (ENERGY STAR) is a joint program of the United States Environmental Protection Agency (EPA) and the United States Department of Energy that helps consumers save money and protect the environment through energy efficient products and practices. ENERGY STAR qualified homes are independently verified to meet strict guidelines for energy efficiency set by the EPA. These efficiencies help homeowners save money on utility bills, provide a more comfortable living environment with better indoor air quality, and help the environment. The Home Energy Rating System (HERS) Index (also known as the Energy-Smart Home Scale) is used by ENERGY STAR to rate the efficiency of a residential building. The ENERGY STAR requirement for a home in Salt Lake City is a HERS Index of 85 or less. The Mayor has determined that constructing homes that meet ENERGY STAR standards (i.e., HERS Index of 85 or less) is in the best interest of the City by reducing the demand for non-renewable energy in the City's residential buildings.

Through LEED and ENERGY STAR standards, the City is committed to reducing greenhouse gas emissions by implementing more sustainable practices, including green building technologies.

Background: The City's Legislative History Reflects a Commitment to Energy Conservation:

Buildings are a leading contributor to carbon emissions and climate change. Existing buildings and the building development industry consume nearly half of the total

energy used in the United States. The City is committed to increasing efficiency of certain resources, including energy, water, and materials associated with construction projects, as demonstrated by this Executive Order.

The City supports green building in both the public and private sectors, a fact that is reflected in the City's rich legislative history from both the Executive and Legislative branches. On June 8, 2005, Mayor Anderson signed an Executive Order requiring all public buildings owned and controlled by the City to be built or renovated using LEED standards at the "Certified" level. Then, on January 19, 2006, Mayor Anderson signed an amended Executive Order increasing the LEED standard for City owned and controlled buildings to the "Silver" level.

On October 17, 2006, the City Council enacted and the Mayor approved Ordinance No. 78 of 2006 (codified at Chapter 18.95 of the Salt Lake City Code), which requires applicable City funded construction projects to achieve, at minimum, a "Silver" certification level of LEED compliance for all new buildings and major renovations of 10,000 square feet or larger. This enactment placed the City among the most progressive cities in the nation in terms of sustainable building policies. Subsequently, on November 7, 2006, the City Council adopted Resolution No. 73 of 2006 encouraging both the Library and the Board of Directors of the Redevelopment Agency to adopt similar LEED standards for applicable building projects funded by the Library Fund and Redevelopment Agency.

On November 17, 2006, the City Council enacted and the Mayor approved Ordinance No. 79 of 2006 (codified at Section 18.12.010 of the Salt Lake City Code), which amended its Board of Appeals membership requirement to include one LEED

accredited member.

The Purpose of this Executive Order is to Incentivize "Green" Building:

The purpose of this Executive Order is to reassert the City's commitment to green building practices in new construction and major renovations throughout the City, and to provide leadership and guidance in promoting, facilitating, and instituting such practices in the private development community by incentivizing developers who agree in advance to meet and/or exceed the "Silver" level of LEED certification or achieve the standards required for an ENERGY STAR rating for homes.

How the Incentive will work --Expedited Plan Review:

The City is committed to incentivizing energy efficient and sustainable development and construction on all new construction and major renovation projects throughout the city, and this Executive Order authorizes the City Building Official to expedite building plan review for that purpose. To support and implement this commitment, the City Building Official shall publish, within sixty (60) days after execution of this Executive Order, the "Expedited Plan Review Process" (Process), to be implemented by the Division of Building Services and Business Licensing (BSL). This Process will be available on the BSL website (www.slcgov.com/ced/buildzone/). This Process will include a section entitled "Standards for Eligible Green Building Projects" that describes, in detail, the LEED and/or ENERGY STAR requirements, including the type and distribution of points, that will need to be met for a project to qualify under the "Expedited Plan Review Process."

Projects that are in keeping with the City's aggressive initiative to lessen the impact on the environment will apply for expedited plan review by:

1. Submitting an Application for Expedited Plan Review that demonstrates how the project will meet the City's current "Standards for Eligible Green Buildings" as documented in the published "Expedited Plan Review Process";
2. Meeting with City staff to discuss how the project will comply with the City's current "Standards for Eligible Green Buildings"; and
3. Submitting a refundable Green Building Deposit of $5,000 in the form of a cashier's check or credit card payment.

After meeting the three criteria above, City staff will determine within three (3) business days if the project is approved for expedited plan review. If the project is not approved, City staff will notify the applicant and refund the Green Building Deposit within fourteen (14) business days.

Once the project is completed and appropriate certification has been obtained as described in the City's "Standards for Eligible Green Buildings" within the "Expedited Plan Review Process," the applicant who was previously approved for expedited plan review may apply for a refund of the Green Building Deposit. If the project does not meet the "Standards for Eligible Green Buildings" as approved by City staff and demonstrated by appropriate certification, the Green Building Deposit will not be refunded, depending on circumstances and at the sole discretion of the Building Official.

Interest will not accrue on any deposit made under this Executive Order.

Effective Date:

This Executive Order will become effective sixty (60) days after execution hereof. Upon the effective date of this Executive Order, the Division of Building Services and

Business Licensing will implement the "Expedited Plan Review Process," which includes the City's "Standards for Eligible Green Buildings." These Standards will document the project requirements and application process used by Building Officials to support this Executive Order. The Division of Building Services may amend or revise these Standards at any time so as to support the City's goal of continual improvement in building sustainability consistent with this Executive Order.

Implementation:

This Executive Order is not intended to supersede any federal, state or local law, including, without limitation, provisions of the Salt Lake City Code, including but not limited to those relating to the criteria for evaluating historic buildings or sites; or any contract, grant, or other funding requirement; or other standards or restrictions that may otherwise apply to an applicable building project.

This Executive Order is not intended to supersede any federal, state, or local law that gives statutory priority to any applicant, including a charter school under Utah Code Ann. § 10-9a-305(8)(b) (Supp. 2008), as amended.

This Executive Order does not alter or amend the Executive Order, dated January 19, 2006, requiring all public buildings owned or operated by the City to be built or renovated to LEED Silver standards.

This Executive Order may be suspended, if in the discretion of the City Building Official, or his or her designee, the City does not have adequate personnel to carry out the terms of the Order.

This Executive Order is not intended to limit the discretion of the Building Official, or his or her designee, to act in an emergency or to otherwise process

applications in a manner that serves the health, safety, or welfare of the City or its residents.

Nothing stated herein is intended to create a contract, whether express or implied.

Frequently Asked Questions:

Frequently Asked Questions

When will the Executive order be signed by the Mayor?

The objective is to have the executive order signed by the Mayor sometime around the end of August. The executive order allows the administration 60 days to develop a policy to administer the new program for priority plan review

When will Building Services accept new plan review submittals into the new process with the incentives?

Sixty days after the Executive order is signed by the Mayor.

Why are LEED and Energy Star the standards used to judge sustainability?

Both of these standards have been refined over the years and are nationally recognized standards. They both have clear requirements and active easily executed certification standards and support organizations for the certifications.

Why is this program being accomplished by Executive Order VS a change to the Ordinance via City Council approval?

The program is a precursor to a comprehensive sustainability initiative that will be accomplished in the near future with the help of a nationally recognized experienced consultant. The executive order saves the time the Planning Commission and City Council would be required for a proposed ordinance, which will be required to review and approve the comprehensive sustainability plan in the next year or so.

How will the sustainability indicators be evaluated before plans are accepted into the prioritized plan review process?

A cursory review will be undertaken by plan review staff to evaluate the sustainability indicators included in the design and the requirements of each certification program. (EnergyStar and LEED)

What happens if the project is never certified after the priority review is provided?

CUSTOMERS WILL BE REQUIRED TO MAKE A $5,000 DEPOSIT AT THE TIME THE PLANS ARE SUBMITTED REQUESTING PRIOITY REVIEW. THIS DEPOSIT IS FULLY REFUNDABLE UPON SUCCESSFUL CERTIFICATION WITH THE RESPECTIVE SUSTAINABLITIY PROGRAMS. (NO INTEREST ACCRUES ON THIS DEPOSIT)

Who is responsible for providing the documentation of certification?

Proof of certification must be provided before the deposit can be refunded to the

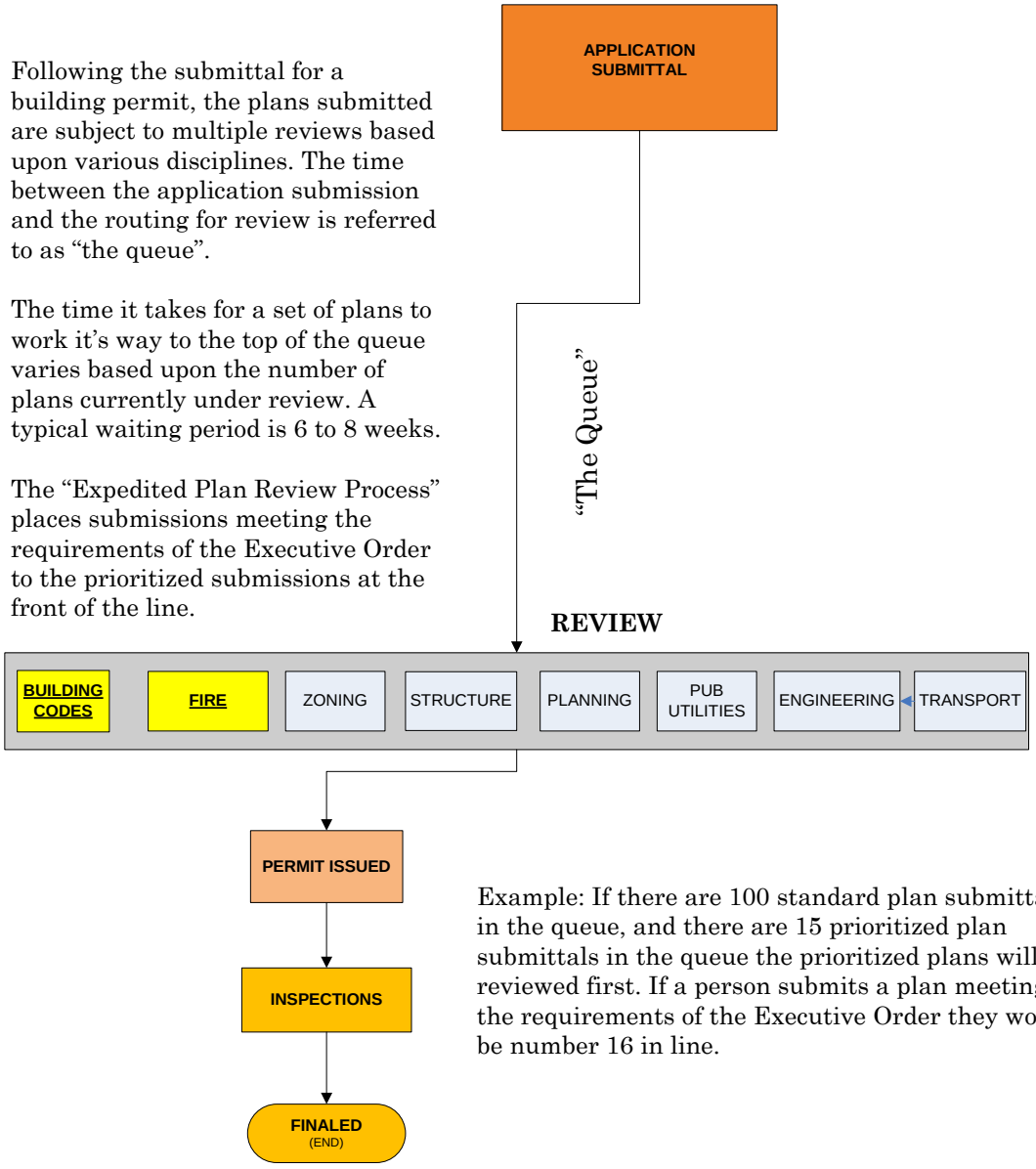
customer that provided the deposit.

How does this initiative fit in with the City's overall sustainability initiative?

This executive order and subsequent policy for prioritized plan review is a quick step in the direction of overall sustainability program, which will be produced by a private contractor in tow phases over the next year or so.

Salt Lake City LEEDs Certified / Energy Star "Expedited Plan Review Process"

- Following the submittal for a building permit, the plans submitted are subject to multiple reviews based upon various disciplines. The time between the application submission and the routing for review is referred to as "the queue".
- The time it takes for a set of plans to work it's way to the top of the queue varies based upon the number of plans currently under review. A typical waiting period is 6 to 8 weeks.
- The "Expedited Plan Review Process" places submissions meeting the requirements of the Executive Order to the prioritized submissions at the front of the line.



Example: If there are 100 standard plan submittals in the queue, and there are 15 prioritized plan submittals in the queue the prioritized plans will be reviewed first. If a person submits a plan meeting the requirements of the Executive Order they would be number 16 in line.

Public Comments:

OPEN HOUSE
LEED and Energy Star; Expedited Plan Review for New Construction
Executive Order
ATTENDANCE ROLL
July 31, 2008

PRINT NAME Scott Squire	PRINT NAME
ADDRESS 1920 E CAIRO DR	ADDRESS
ZIP CODE 84108	ZIP CODE
PRINT NAME Gaylon Smith	PRINT NAME
ADDRESS Engineering SLC	ADDRESS
ZIP CODE 84119 (535-6344)	ZIP CODE
PRINT NAME Robin Cargault	PRINT NAME
ADDRESS 1428 East Sunnyside Ave	ADDRESS
ZIP CODE 84105	ZIP CODE
PRINT NAME	PRINT NAME
ADDRESS	ADDRESS
ZIP CODE	ZIP CODE
PRINT NAME	PRINT NAME
ADDRESS	ADDRESS
ZIP CODE	ZIP CODE
PRINT NAME	PRINT NAME
ADDRESS	ADDRESS
ZIP CODE	ZIP CODE

OPEN HOUSE
LEED and Energy Star; Expedited Plan Review for New Construction
Executive Order
ATTENDANCE ROLL
July 31, 2008

PRINT NAME Preston Koerner, Cambridge Bard & Christensen ADDRESS 39 Exchange PL, STE 100 ZIP CODE SLC, UT 84111	PRINT NAME Matt Alvarez Construction site solutions ADDRESS PO Box 1148 ZIP CODE Park City Utah 84060
PRINT NAME Tony Yearego ADDRESS 2211 S 300 W ZIP CODE SLC, UT 84115	PRINT NAME KEN ANDERSON ADDRESS 451 S. STATE ZIP CODE
PRINT NAME Rinaldo Hunt ADDRESS 3177 S. Highland Dr. ZIP CODE 84106	PRINT NAME BARRY RYSTAMP ADDRESS 1837 E. 1300 S. ZIP CODE 84108
PRINT NAME BRUCE BAKER (HAMILTON PARTNERS) ADDRESS 111 E. BROADWAY #150 ZIP CODE 84111	PRINT NAME WARREN LLOYD AIA ADDRESS 511 E 300 S. ZIP CODE 84102
PRINT NAME Bryan Taylor (Questar Thermwise) ADDRESS 6782 S. Courtland Ave ZIP CODE 84121	PRINT NAME DAVID ENGEL ADDRESS 758 S. REDWOOD RD ZIP CODE 84092
PRINT NAME WHITNEY WARD (VCBO ARCHITECTURE) ADDRESS 542 SOUTH 600 EAST ZIP CODE 84105	PRINT NAME KIRK MOUSHEGIAN (NEXANT) ADDRESS 3698 S. HIGHLAND DR ZIP CODE 84106

ZACH TAYLOR (SIRQ CONSTR.)
875 W. BAXTER DR.
84095

JOHN E. PACE AIA
PACE HART DESIGN
587 5TH AVE.
SALT LAKE CITY, 84103

OPEN HOUSE
July 31, 2008
Executive Order
LEED and Energy Star; Expedited Plan Review for New Construction
(City-wide)

Please provide us with the following information, so that we may contact you for further comment (please print clearly, thank you):

Name BARRY RYSKAMP

Address) 1837 E. 1300 S.
SLC, UT 84108

BARRY.RYSKAMP @ INTERFACEFLOR.COM.
(include zip code)

Phone 801 582 2809.

Comments:
→ ANY INSIGHTS ON ~~PROJECT~~ TAX INCENTIVES (PROPERTY TAX) FOR OLDER HOMES THAT UPGRADE HEATING, COOLING, WATER USAGE, SOLAR?

→ HOW DOES THE CITY LOOK AT "CLIMATE NEUTRAL" PRODUCTS WHEN PURCHASING PRODUCTS FOR THE CITY?

Walkingshaw, Nole

From: AIA UTAH [info@aiautah.org]
Sent: Monday, July 28, 2008 12:32 PM
To: Walkingshaw, Nole
Subject: Re: LEED Expedited Plan Review
Follow Up Flag: Follow up
Flag Status: Red

Nole,

Thank you very much.

I have read through the draft executive order and will forward it to AIA leadership for their comments. I expect that we'll participate in the open house on Thursday.

I do have one question based on the following text:

After meeting the three criteria above, City staff will determine within three (3) business days if the project is approved for expedited plan review. If the project is not approved, City staff will notify the applicant and refund the Green Building Deposit within fourteen (14) business days.

If the City staff determines within the three days if the project is approved for expedited plan review, how long does the actual plan review take? I'm a little confused between approval for expedited plan review and the actual plan review.

Thanks

Elizabeth

----- Original Message -----
From: Walkingshaw, Nole
To: AIA UTAH
Cc: Jack Hammond ; John Shuttleworth ; Goff, Orion
Sent: Monday, July 28, 2008 12:01 PM
Subject: RE: LEED Expedited Plan Review

Elizabeth,

I have attached a copy of the final draft. Please take a look at it and provide any input you may have. We are having an open house this Thursday in the Salt Lake City and County Building room 126 from 4:30 to 6:00 if you would like to discuss some details.

Thank you,
Nole

From: AIA UTAH [mailto:info@aiautah.org]
Sent: Monday, July 28, 2008 11:01 AM
To: Walkingshaw, Nole

7/29/2008

Walkingshaw, Nole

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Sent: Monday, July 28, 2008 11:01 AM
To: Walkingshaw, Nole

7/29/2008

Walkingshaw, Nole

From: JOHN A GARDINER [johngardiner1234@msn.com]
Sent: Monday, July 28, 2008 4:36 PM
To: Walkingshaw, Nole
Subject: Green Expedited Plan Review

Nole,

I am unable to attend the open house this week but want my input on this matter to be heard. I think that the idea that green buildings get some expedited plan review by the building inspectors is an ok idea. However, I believe that Mayor Becker and his administration has fallen into the same pattern of governance followed by the last administration; social issues taking priority over getting government running better. We have under development a 30 unit condominium project in Sugar House and have just submitted final plans for plan review. We are told by the City that our wait time will be 8 - 11 weeks. Almost 3 months to get a building permit is ridiculous. Now, the mayor wants to let green projects go to the front of the line. My input is that the administration should FIX THE PROBLEM IN CITY MANAGEMENT before it puts time and effort into social causes such as green building. Please fix the dysfunctional building permit system and get some leadership for the planning department before even thinking about green building initiatives.

Thank You

John A. Gardiner
President
Gardiner Properties, LLC
1075 East 2100 South
Salt Lake City, Utah 84106

(801) 487-2012 (Office)
(801) 487-2093 (Fax)
(801) 971-6151 (Mobile)

7/29/2008

HAMILTON PARTNERS

Commercial Real Estate

Property Management

Acquisitions & Development

Ownership

July 31, 2008

Salt Lake City Corporation
c/o Nole Walkingshaw
451 South State Street
Salt Lake City, UT 84114

Re: Executive Order, LEED and Energy Star; Expedited Plan Review for New Construction

Honorable Mayor Becker,

Hamilton Partners is pleased to support your efforts in expediting plan review timeframes for new construction and applaud your dedication to encouraging a viable and sustainable city.

We will be interested to see the City's execution of this Order, and anticipate that this will be the impetus that will attract additional quality projects to Salt Lake City. Hamilton Partners hopes to see this order create a significant reduction in the timeframes necessary to entitle and permit projects that meet or exceed this requirement.

As you are aware, Hamilton Partners is currently working on the first LEED Certified hi-rise building in downtown, 222 South Main. We anticipate the building will qualify for at least a Silver rating. We are committed to providing the community with exceptional places to live and work and feel your Executive Order will encourage others to participate in this extremely important cause.

Hamilton Partners looks forward to many more successful projects and commend your vision and leadership as it relates to this cause.

Sincerely,

Bryce Baker
Development Manager
Hamilton Partners, Inc.

111 East Broadway, Suite 150
Hamilton Partners • T.801.746.2888 F.801.746.2889
www.Hamiltonpartners.com

Walkingshaw, Nole

From: Zach Taylor [ztaylor@sirqinc.com]
Sent: Friday, August 01, 2008 9:45 AM
To: Walkingshaw, Nole
Subject: re LEED open house

Thanks for your time last night in discussing the LEED initiative that the mayor is putting in place.

My main concern with this executive order is in regards to the wording that will be in place as to what "expedited" actually means. I recognize that there is some "weasel wording" protecting the city from any sort of scheduling delays in getting the plans out quicker. That merely creates the need for the same type of exit clause for owners and architects. Who is to say what time frame is expedited and what is not. If you require applicants to post a cash bond / % based escalating charge for expedited plan check there has to be some guarantee, from the city, that there will be a certain schedule maintained, or a refund must be provided. In order for the bond contract to work it has to be equally beneficial for both parties.

You mentioned that you might need help with the next year's sustainable building conf. Let me know if I can be of any assistance.

Thanks again for your initiative in making Salt Lake greener.

Zachary Taylor
LEED AP
801.598.3658 cel

SIRQ Construction
801.253.7825 off
801.253.7663 fax

8/1/2008

6TH AND 6TH Office Building
Strategy For LEED NC Achievement

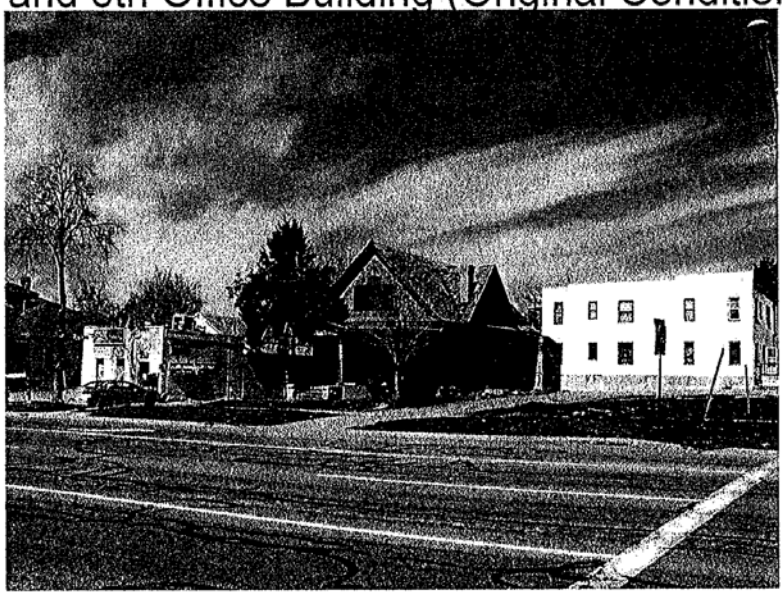
-LEED Silver Certified (anticipated)

- -Project on existing building site
- -Building reuse 75% of existing walls and floors
- -Diversion of waste to landfill 75%
- -Recycled content 10% of new materials
- -Water efficient landscaping, native vegetation
- -Low-Emitting materials
- -Views to outside 90% of spaces
- -Bicycle parking and shower
- -Preferred parking for carpool and alternative fuel vehicles
- -Green power credits purchased
- -Environmental awareness display
- -Access to public transportation

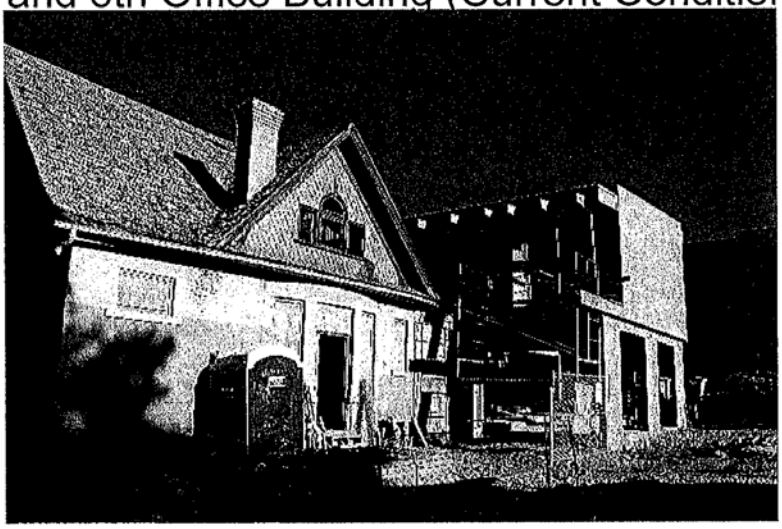
-Historic Preservation Tax Credit

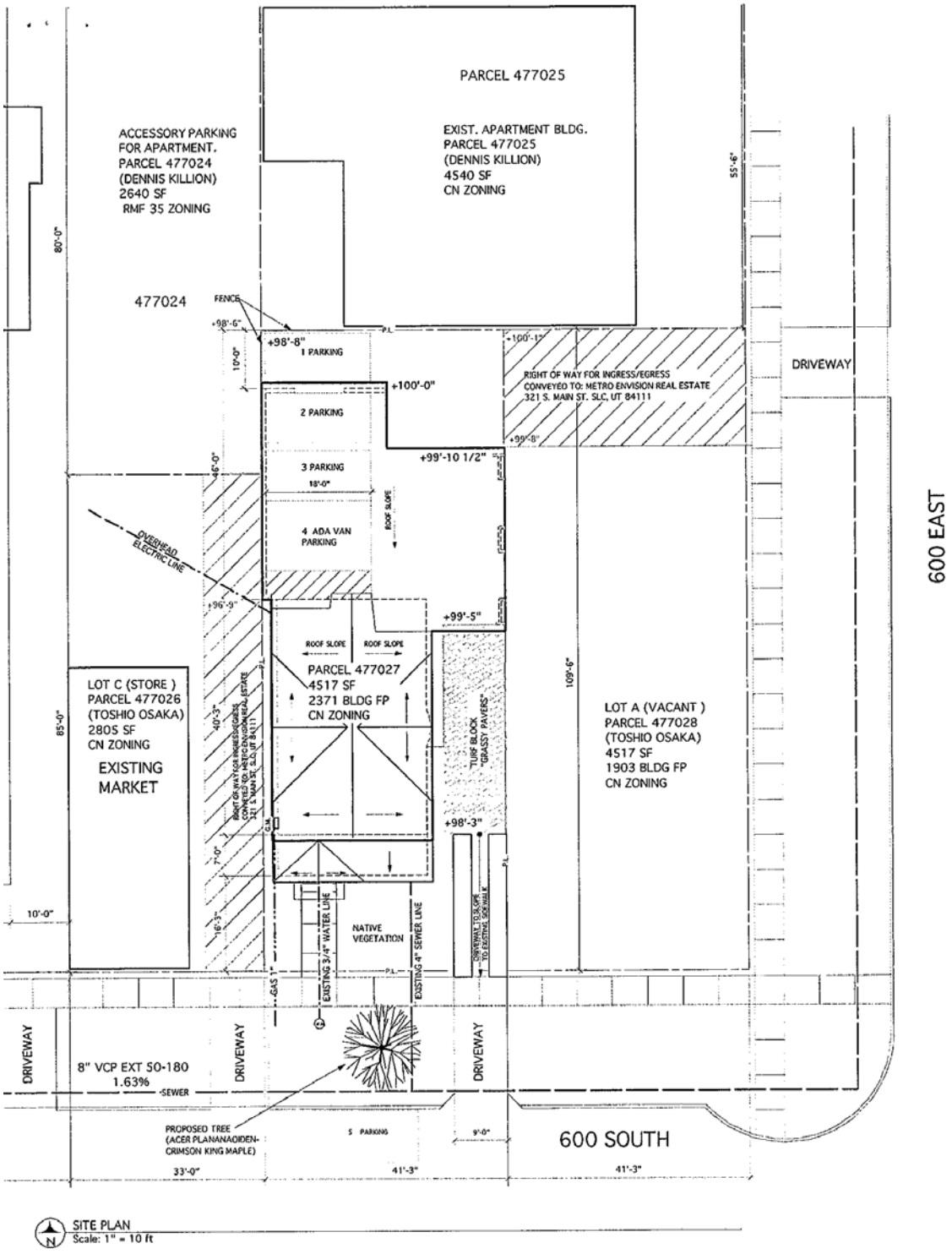
- -Located in Local Historic District
- -Approved by Historic Landmarks Commission
- -Seismic upgrades to original 1907 structure
- -Restoration of existing windows
- -Rehabilitation of the three significant gable ends

6th and 6th Office Building (Original Conditions)



6th and 6th Office Building (Current Conditions)




PARCEL 477025
EXIST. APARTMENT BLDG.
PARCEL 477025
(DENNIS KILLION)
4540 SF
CN ZONING
ACCESSORY PARKING
FOR APARTMENT.
PARCEL 477024
(DENNIS KILLION)
2640 SF
RMF 35 ZONING
477024
FENCE
+98'-8"
1 PARKING
+100'-0"
2 PARKING
3 PARKING
18'-0"
4 ADA VAN
PARKING
+99'-10 1/2"
ROOF SLOPE
OVERHEAD
ELECTRIC LINE
+96'-9"
+99'-5"
PARCEL 477027
4517 SF
2371 BLDG FP
CN ZONING
LOT C (STORE)
PARCEL 477026
(TOSHIO OSAKA)
2805 SF
CN ZONING
EXISTING
MARKET
RIGHT OF WAY FOR INGRESS/EGRESS
CONVEYED TO: METRO ENVISION REAL ESTATE
321 S. MAIN ST. SLC, UT 84111
TURF BLOCK
"GRASSY PAVERS"
LOT A (VACANT)
PARCEL 477028
(TOSHIO OSAKA)
4517 SF
1903 BLDG FP
CN ZONING
+98'-3"
NATIVE
VEGETATION
EXISTING 3/4" WATER LINE
EXISTING 4" SEWER LINE
GAS
DRIVEWAY
DRIVEWAY
DRIVEWAY
DRIVEWAY
8" VCP EXT 50-180
1.63%
SEWER
PROPOSED TREE
(ACER PLANANAOIDEN-
CRIMSON KING MAPLE)
5 PARKING
9'-0"
600 SOUTH
600 EAST
80'-0"
85'-0"
109'-6"
55'-6"
10'-0"
40'-3"
16'-3"
7'-0"
33'-0"
41'-3"
41'-3"
SITE PLAN
Scale: 1" = 10 ft

[redacted]

LEED for New Construction v2.2
Registered Project Checklist

Project Name: 6TH AND 6TH OFFICE BUILDING
Project Address: 573 E. 600 S. SALT LAKE CITY, UTAH 84102

Yes	?	No			
9		5	**Sustainable Sites**		14 Points
			Prereq 1	**Construction Activity Pollution Prevention**	Required
1			Credit 1	**Site Selection**	1
1			Credit 2	**Development Density & Community Connectivity**	1
		1	Credit 3	**Brownfield Redevelopment**	1
1			Credit 4.1	**Alternative Transportation**, Public Transportation Access	1
1			Credit 4.2	**Alternative Transportation**, Bicycle Storage & Changing Rooms	1
1			Credit 4.3	**Alternative Transportation**, Low-Emitting & Fuel-Efficient Vehicles	1
1			Credit 4.4	**Alternative Transportation**, Parking Capacity	1
		1	Credit 5.1	**Site Development**, Protect or Restore Habitat	1
1			Credit 5.2	**Site Development**, Maximize Open Space	1
		1	Credit 6.1	**Stormwater Design**, Quantity Control	1
		1	Credit 6.2	**Stormwater Design**, Quality Control	1
1			Credit 7.1	**Heat Island Effect**, Non-Roof	1
		1	Credit 7.2	**Heat Island Effect**, Roof	1
1			Credit 8	**Light Pollution Reduction**	1

Yes	?	No			
3		2	**Water Efficiency**		5 Points
1			Credit 1.1	**Water Efficient Landscaping**, Reduce by 50%	1
		1	Credit 1.2	**Water Efficient Landscaping**, No Potable Use or No Irrigation	1
		1	Credit 2	**Innovative Wastewater Technologies**	1
1			Credit 3.1	**Water Use Reduction**, 20% Reduction	1
1			Credit 3.2	**Water Use Reduction**, 30% Reduction	1

Yes	?	No			
6		11	**Energy & Atmosphere**		17 Points
			Prereq 1	**Fundamental Commissioning of the Building Energy Systems**	Required
			Prereq 2	**Minimum Energy Performance**	Required
			Prereq 3	**Fundamental Refrigerant Management**	Required

*Note for EAc1: All LEED for New Construction projects registered after June 26th, 2007 are required to achieve at least two (2) points under EAc1.

4		6	Credit 1	**Optimize Energy Performance**	1 to 10
				10.5% New Buildings or 3.5% Existing Building Renovations	1
				14% New Buildings or 7% Existing Building Renovations	2
				17.5% New Buildings or 10.5% Existing Building Renovations	3
				4 21% New Buildings or 14% Existing Building Renovations	4
				24.5% New Buildings or 17.5% Existing Building Renovations	5
				28% New Buildings or 21% Existing Building Renovations	6
				31.5% New Buildings or 24.5% Existing Building Renovations	7
				35% New Buildings or 28% Existing Building Renovations	8
				38.5% New Buildings or 31.5% Existing Building Renovations	9
				42% New Buildings or 35% Existing Building Renovations	10
		3	Credit 2	**On-Site Renewable Energy**	1 to 3
				2.5% Renewable Energy	1
				7.5% Renewable Energy	2
				12.5% Renewable Energy	3
		1	Credit 3	**Enhanced Commissioning**	1
1			Credit 4	**Enhanced Refrigerant Management**	1
		1	Credit 5	**Measurement & Verification**	1
1			Credit 6	**Green Power**	1

continued...

Yes	?	No			
3		8	**Materials & Resources**		13 Points
			Prereq 1	**Storage & Collection of Recyclables**	Required
1			Credit 1.1	**Building Reuse**, Maintain 75% of Existing Walls, Floors & Roof	1
		1	Credit 1.2	**Building Reuse**, Maintain 100% of Existing Walls, Floors & Roof	1
		1	Credit 1.3	**Building Reuse**, Maintain 50% of Interior Non-Structural Elements	1
1			Credit 2.1	**Construction Waste Management**, Divert 50% from Disposal	1
			Credit 2.2	**Construction Waste Management**, Divert 75% from Disposal	1

		1	Credit 3.1	**Materials Reuse**, 5%	1
		1	Credit 3.2	**Materials Reuse**,10%	1
1			Credit 4.1	**Recycled Content**, 10% (post-consumer + ½ pre-consumer)	1
	1		Credit 4.2	**Recycled Content**, 20% (post-consumer + ½ pre-consumer)	1
		1	Credit 5.1	**Regional Materials**, 10% Extracted, Processed & Manufactured Regionally	1
		1	Credit 5.2	**Regional Materials**, 20% Extracted, Processed & Manufactured Regionally	1
		1	Credit 6	**Rapidly Renewable Materials**	1
		1	Credit 7	**Certified Wood**	1

Yes	?	No		
12		3	**Indoor Environmental Quality**	15 Points
			Prereq 1	**Minimum IAQ Performance**	Required
			Prereq 2	**Environmental Tobacco Smoke (ETS) Control**	Required
		1	Credit 1	**Outdoor Air Delivery Monitoring**	1
		1	Credit 2	**Increased Ventilation**	1
1			Credit 3.1	**Construction IAQ Management Plan**, During Construction	1
1			Credit 3.2	**Construction IAQ Management Plan**, Before Occupancy	1
1			Credit 4.1	**Low-Emitting Materials**, Adhesives & Sealants	1
1			Credit 4.2	**Low-Emitting Materials**, Paints & Coatings	1
1			Credit 4.3	**Low-Emitting Materials**, Carpet Systems	1
1			Credit 4.4	**Low-Emitting Materials**, Composite Wood & Agrifiber Products	1
1			Credit 5	**Indoor Chemical & Pollutant Source Control**	1
1			Credit 6.1	**Controllability of Systems**, Lighting	1
1			Credit 6.2	**Controllability of Systems**, Thermal Comfort	1
1			Credit 7.1	**Thermal Comfort**, Design	1
1			Credit 7.2	**Thermal Comfort**, Verification	1
		1	Credit 8.1	**Daylight & Views**, Daylight 75% of Spaces	1
1			Credit 8.2	**Daylight & Views**, Views for 90% of Spaces	1

Yes	?	No		
4			**Innovation & Design Process**	5 Points
1			Credit 1.1	**Innovation in Design**: Provide Specific Title	1
1			Credit 1.2	**Innovation in Design**: Provide Specific Title	1
1			Credit 1.3	**Innovation in Design**: Provide Specific Title	1
			Credit 1.4	**Innovation in Design**: Provide Specific Title	1
1			Credit 2	**LEED® Accredited Professional**	1

Yes	?	No		
37	2	29	**Project Totals** (pre-certification estimates)	69 Points

Certified: 26-32 points, Silver: 33-38 points, Gold: 39-51 points, Platinum: 52-69 points

LEED Project Fees:

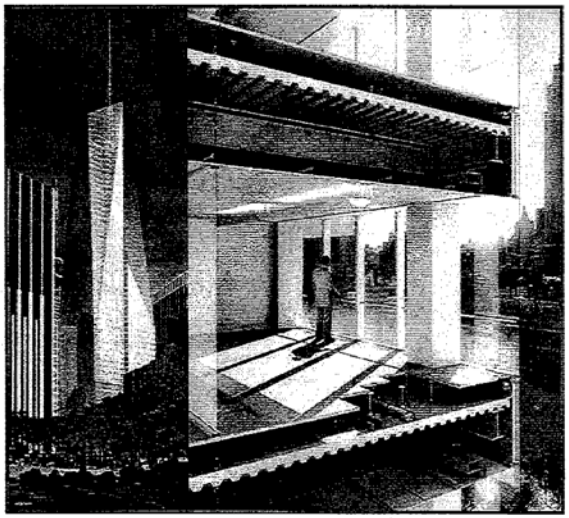
Registration Fees

Members $450.00 Non-Members $600.00

Certification Fees

	Less than 50,000 Square Feet	50,000-500,000 Square Feet	More than 500,000 Square Feet
LEED for: New Construction, Commercial Interiors, Core and Shell, and Schools	Fixed Rate	Based on Sq. Ft.	Fixed Rate
Design Review			
Members	$1,250.00	$0.025/ Square Foot	$12,500.00
Non-Members	$1,500.00	$0.03/ Square Foot	$15,000.00
Construction Review			
Members	$500.00	$0.01/ Square Foot	$5,000.00
Non-Members	$750.00	$0.015/ Square Foot	$7,500.00
Combined Design & Construction Review			
Members	$1,750.00	$0.035/ Square Foot	$17,500.00
Non-Members	$2,250.00	$0.045/ Square Foot	$22,500.00
LEED for Existing Buildings	Fixed Rate	Based on Sq. Ft.	Fixed Rate
Initial Certification Review			
Members	$1,250.00	$0.025/ Square Foot	$12,500.00
Non-Members	$1,500.00	$0.03/ Square Foot	$15,000.00

Local Leaders in Sustainability



Green Incentives

The American Institute of Architects

AIA

Local Leaders in Sustainability

Green Incentives

The American Institute of Architects

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2008 President

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AIA staff support:
Biljana Kaumaya, Cooper Martin,
Brooks Rainwater, and Hannah Wesolowski

Ceres

The Real Estate Roundtable

Fireman's Fund Insurance Company
A company of Allianz

SEM Sustainable Enterprise Management

Introduction

As state and local governments work toward a sustainable future, the American Institute of Architects is serving as a facilitator to provide information on implementing comprehensive green building policies in our nation's communities. The AIA is focusing its energy on promoting sustainability at the local, state, and federal level by working with our partners to promote green building. *Local Leaders in Sustainability – Green Incentives* is an analysis of the current state of green building incentives at the state and local level. This white paper analyzes data from local and state-level research on green incentive programs, including the Local Leaders in Sustainability study, as well as input from the Developers Roundtable, a discussion among relevant stakeholders on incentive options for the building sector.

The AIA continues to bring together important parties in the discussion, including state and local politicians and officials, as well as representatives from within the design and construction/development industry, in order to establish best practices and credibly discuss the current state of green building law and practice. As such, the AIA held the Developers Roundtable on December 3, 2007, at its headquarters in Washington, DC. The group included architects, representatives of development companies, the finance/investment sector, retailers, building owners and operators, the insurance industry, and other pertinent stakeholders. The purpose behind the Roundtable was to identify a series of green building incentives that have wide appeal in the private sector and further encourage the construction of green buildings by establishing them as the smartest choice in new development.

The meeting attendees included representatives from the following organizations:

- Alliance for Sustainable Built Environments (ASBE)
- The American Institute of Architects (AIA)
- Building Owners and Managers (BOMA) International
- Ceres
- Environmental Protection Agency (EPA)
- Energy Star
- Fireman's Fund Insurance Company, a member of the Allianz Group
- General Services Administration (GSA)
- Hannon Armstrong
- International Council of Shopping Centers (ICSC)
- Lowes
- National Association of Counties (NACo)
- National Governors Association (NGA)
- Real Estate Roundtable
- Sustainable Enterprise Management LLC
- Turner Construction
- Urban Land Institute (ULI)

As local and state governments develop comprehensive green building programs, they can provide a number of incentives in order to encourage the private development of green buildings. Green incentives range from those that are virtually cost-free to options that involve a direct investment by government bodies. This provides state and local governments with the opportunity to offer a range of inducements based on the fiscal outlook, the current level of development activity, and the scope of the green building program.

The incentives described in this report offer a wide assortment of choices: tax incentives, density/floor area ratio bonuses, expedited permitting, grants, loans, award programs, technical/design assistance, leasing assistance, permit/zone fee reduction, rebates, subsidized green premiums, and discounts on Energy Star® appliances.

An analysis of the research combined with the Developers Roundtable discussion indicated that the most attractive incentives are:

- *Tax Incentives* – temporarily reduce taxes for specific levels of green measures and certification;
- *Density/Floor Area Ratio Bonuses* – implement height bonuses, floor/area ratio bonuses, reductions in landscaping requirements, and count green roof space as landscaping/open space in return for achieving levels of green building ratings; and
- *Expedited Permitting* – streamline the permitting process for building, plan, and site permits on projects that achieve a certain level of sustainability.

Regardless of which incentive is pursued, it is vital that any policy be simple to implement and access. Although no option is perfect, green incentives help advance sustainable design in the private sector. The ultimate goal for green building is to eliminate the concept of "building green" and instead have green design be the standard integrated into all buildings. With the right green incentives, a robust advocacy effort, and strong support from the public, this day is soon approaching.

This white paper is a first step towards identifying the current state of green building incentives throughout America, identifying what works well and what needs improvement, and focusing on the most robust and useful incentives identified. *Local Leaders in Sustainability – Green Incentives* will be followed up with advocacy efforts to transform this conversation into actionable legislation and initiatives on the local and state level.

Cover photo

One Bryant Park, New York, New York
Cook + Fox Architects LLP, Credit: (C) dbox for
Cook + Fox Architects LLP

Content

as a result, not cost-effective. Streamlining the application process will ensure that the credits are used more and thus more effective.

Examples

Income Tax: Maryland TAX-GENERAL Code Ann. § 10-722
An income tax credit provided to owners or tenants of green buildings and green building components. The credit equals eight percent of the allowable costs ($120 per square foot of the base building/$60 per square foot of the tenant space) for green buildings. It provides that the Administration shall adopt standards for a building to qualify as a green building that are consistent with the criteria set forth by the USGBC.

Property Tax: Cincinnati Tax Abatement
Any homeowner in Cincinnati may be eligible for property tax abatement if they have renovated their home or purchased a newly constructed home that was built to LEED® standards. Multi-unit housing (four or more units), mixed-use development, and commercial development, both rehabilitation and new construction, are subject to program criteria such as gap analysis, cost/benefit analysis, and relation to other city subsidy.

Property Tax: Honolulu Temporary Tax Exemption
This bill provides a one-year real property tax exemption for commercial, industrial, and resort development that earns LEED certification.

Multipurpose Tax: New York State CLS Tax § 19
This is a tax credit for owners/tenants of buildings that meet certain green standards. The tax can be applied against corporate taxes, personal income taxes, insurance corporation taxes, and banking corporation taxes. New buildings receiving the credit must not exceed 65 percent of the permitted energy usage (75 percent for rehabilitated buildings).

Other Tax: Oregon Business Energy Tax Credit ORS § 469.185
This tax credit is designed to offset the cost to businesses that build sustainable commercial buildings meeting the LEED Silver rating. The credit is refunded from the Oregon Department of Energy and is based on the square footage of the entire building.

To read more on this tax credit, click here.

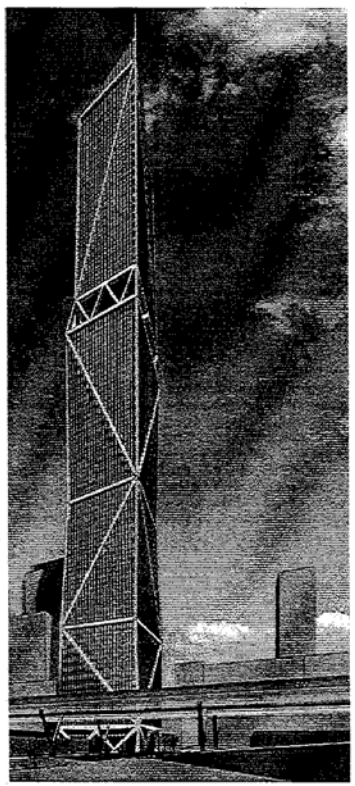
County Tax Exemption: Chatham County, Georgia, Ordinance
The exemption provides a five-year full property state and county tax abatement for commercial buildings that receive LEED Gold certification. It also provides a reduced abatement for the next five years (a reduction of 20 percent each year).

City Tax Exemption: Cincinnati, Ohio, Ordinance
A 100 percent tax exemption for LEED certified buildings, not to exceed $500,000 over 15 years for new buildings and over 10 years for renovations, is offered by the city. If the building receives LEED Platinum certification, there is no maximum exemption.

BONUS DENSITY

Jurisdictions have implemented height bonuses, floor/area ratio (FAR) bonuses, reductions in landscaping requirements, and the counting of green roof space as landscaping/open space in return for achieving levels of green building ratings. These programs can be particularly attractive to developers and owners in cities and counties that have capacity shortfalls. Additional space allowances increase profits for developers and building owners and reductions in transfer costs can translate into incentives for the buyer.

Bonus density programs are valuable because developers want to increase floor space on projects in order to enhance profitability. In order for these programs to be effective, bonus density must maintain comprehensive green requirements and therefore preserve the exclusivity of the incentive. As green building becomes more commonplace, municipalities may need to reexamine the stringency of the requirements for density bonuses and increase them concordantly.



181 Fremont, San Francisco, CA, Heller Manus Architects

City/County Examples

Seattle Council Bill Number 115524/Ordinance Number 122054
Seattle downtown zoning legislation provides that projects achieving a LEED Silver rating or higher and that contribute to affordable housing and other public amenities may receive greater heights and/or floor area for commercial and residential buildings. After developers/owners submit a letter of intent, the city will issue a permit and Certificate of Occupancy based on a good faith commitment. Applicants must submit documentation demonstrating LEED certification within 90 days or face a $500/day penalty for late entries. Failure to demonstrate performance will also result in a penalty. All penalties contribute to the Green Building Fund, which is dedicated to supporting market adoption of green building.

To read more on this bonus program, click here and here.

Arlington, Virginia, Green Building Incentive Program
This incentive awards commercial projects and private developments that earn LEED certification additional density between .15 and .35 FAR and/or additional height of up to three stories (the higher the certification level, the greater the density awarded). Certification does not guarantee additional density – projects are analyzed on a case-by-case basis. The Master Certificate of Occupancy is awarded when the building is certified.

EXPEDITED PERMITTING

Streamlining the permitting process for building, plan, and site permits can save green developers substantial time and money. This may require the reorganization of municipal staff or initially cost the jurisdiction in other indirect ways, but, overall, such a program can result in great cost savings to both the jurisdiction and the architects and developers involved in a project.

Permit streamlining programs offer jurisdictions the ability to increase tax revenue while supplying the development community with a valuable resource. The development community has expressed a concern that

State and Local Green Building Incentives

Government can offer a number of incentives to encourage the private development of green buildings. These green incentives run the gamut, and state and local governments can choose a range of inducements based on the fiscal outlook, the current level of development activity, and the scope of the green building program desired.

The following is a list of the most common* incentives offered by jurisdictions across the country:

- Tax Incentives
- Bonus Density
- Expedited Permitting
- Net Metering
- Grants (including fee subsidization)
- Loans
- Technical Assistance/Design Assistance
- Permit/Zone Fee Reduction
- Rebates and Discounts on Environmental Products (e.g., Energy Star)
- Leasing Assistance

**This is not intended to be an exhaustive list of incentives available, but simply a sampling of incentives that exist. Furthermore, the AIA does not endorse or denounce any of these programs.*

TAX INCENTIVES

Tax incentives are one of the most robust and widely used forms of incentives to promote beneficial practices. They are particularly suited to green building projects because they can be offered for specific levels of green certification and for both short- and long-term goals. These incentives can be offered in any of the following areas:

- Corporate Tax (tax levied on the profits made by companies or associations)
- Gross Receipts Tax (tax levied on the total gross revenues of a company – charged to the seller of goods)
- Income Tax (tax levied on the financial income of persons, corporations, or other legal entities)
- Property Tax/Ad Valorem Tax (tax levied on the value of property)
- Sales Tax (tax levied on goods and services – charged at the point of purchase)
- Local Tax (tax levied from cities and counties)

Tax abatement is the most flexible incentive because municipalities have the opportunity to approve a number of green performance standards and allocate the abatement to any tax jurisdiction. It is important to remember that many developers/owners have different priorities depending on whether they are small developers, large developers, short-term investors, developers who want to maintain several properties, building owners, corporate building tenants, or residential building tenants. These parties have divergent interests and needs, and tax incentives should be available to entice each group.

Additional costs for designing and building green are typically paid up front; yet the benefits gained from reduced energy costs are earned over the building's lifetime. As such, short-term investors may never realize the lifetime cost savings. Immediate tax benefits can encourage them to build green. Building owners that rent properties may also never realize energy savings and therefore prefer to spread the benefit over several years. Transferable tax credits could encourage small developers to build green, and tax abatements for the real property transfer tax could be useful to defray the expensive transfer costs in some localities. In addition, a focus on transit-oriented development could be used to promote more livable communities.

Incremental tax rebates, which would be offered at different levels of development, have also been suggested as a means to encourage all parties involved in the development/ownership process to build green. For example, a portion of the rebate can be given during the design process for efficient design intent, and a portion can then be given for efficient operation of the building at one year out, three years out, etc. Efficiency information should be available from either the state, as in the state programs Efficiency Maine and Efficiency Vermont, or from utility companies, as many already maintain data on energy usage.

Tax abatements have generally been offered as temporary, short-term incentives. This is profitable for entities buying and selling quickly. However, many large projects can take several years to complete, so developers may not be able to reap the same financial benefits from the abatement as short-term buyers/sellers since it may no longer be available when the project is finished. In the future, it will be important to make sure that tax abatements are designed so that they can be utilized in the long-term and are flexible enough to adjust for new concerns.

Federal tax credits are also helpful to offset additional costs associated with building green. The Energy Policy Act of 2005 (Public Law 109-58) created a new tax incentive for constructing energy efficient commercial buildings. Specifically, Section 1331, the Commercial Building Tax Deduction, establishes a tax deduction for expenses related to the design and installation of energy-efficient commercial building systems. This section provides that a building owner may claim a tax deduction for expenditures made as part of a building designed to reduce the total annual energy used in the operation of the building. Building owners can claim a tax deduction of up to $1.80 per square foot of building area for the installation of systems that reduce the total energy and power costs by 50 percent or more when compared with a reference building.

The Energy Independence Act of 2007 and its Energy Efficiency and Conservation Block Grant (EECBG) of 2007 authorizes $2 billion in grant money to communities and states. This law creates a new program that will provide block grants to cities and states to improve energy efficiency and encourage other environmentally beneficial practices. Cities and states can apply for funding for programs that encourage energy efficiency and conservation programs in commercial, residential, and municipal buildings. Grants could also be used to provide energy audits and energy technical assistance. The Energy Efficient Commercial Tax deduction and Energy and Conservation Block Grant are worthwhile federal programs that provide assistance to building owners and local/state governments to promote sustainability.

On the whole, tax credit programs work as a positive incentive for green development. However, some programs remain complicated in nature, and builders and owners often find the effort to complete the application process for these programs to be time consuming and,

Germany
Beginning with the Electric Feed Law and continuing with the Renewable Energy Sources Act, Germany has a policy that pays individuals/corporations directly for the amount of electricity produced. The payment varies depending on the type of renewable energy as well as the size of the installation. Energy production is metered independently of energy consumption, decoupling utility fees from the renewable energy credit.

GRANTS
(INCLUDING FEE SUBSIDIZATION)

Jurisdictions may also consider grant programs, which can offset some of the increased development costs that arise from a green building project. Grants can be used to subsidize the cost of certification or as lump sum amounts applied to the total cost of the building. These incentives are typically awarded in a single, monetary contribution. However, grant programs raise many of the same concerns as tax abatements and therefore should be designed with enough flexibility for all parties to benefit.

Although the conventional "green premium" is dissipating rapidly, and on some projects may no longer exist, municipalities can offer incentives to help cover the additional costs of energy efficiency and other green systems that the community is encouraging. This incentive offers jurisdictions the opportunity to focus on particular features, such as HVAC systems, windows, photovoltaics, water systems, etc. Additionally, as LEED certification can become expensive, jurisdictions can subsidize the cost of USGBC certification through a direct grant to the developer.

City/County Examples

King County, Washington, Grant Program
Grant awards are available to projects in King County (outside of Seattle city limits) that meet stringent resource conservation standards. These include LEED Silver certification or above, a 75 percent recycling rate for all construction and demolition debris, a reduction in landscape irrigation and a building's water use, and compliance with King County's 2005 Surface Water Design Manual and Post-Construction Soil Standards. Projects awarded LEED Silver will receive $15,000, LEED Gold will receive $20,000, and LEED Platinum will receive $25,000. Fifty percent of the grant is awarded upfront, with 50 percent awarded at project completion. The grant money must be returned if the project does not achieve performance results.

To read more on this program, click here.

Portland, Oregon, Green Investment Fund
The Green Investment Fund (GIF) is a competitive grant program that supports innovative green building projects in Portland. The primary intent of the GIF is to support early building and site-related project activities that examine the potential and identify the means to realize an exemplary, comprehensive green building project. GIF grants are secondarily intended to help offset the incremental hard costs of the green building measures or strategies that most strongly contribute to the building's ability to meet the GIF goals and priorities.

Los Angeles Department of Water and Power Green Building Incentive
This program provides up to $250,000 to help defray the costs of making a building green and achieving LEED standards.

Pasadena, California, LEED Certification Program
Pasadena's program provides $15,000 grants for applicants who achieve LEED certification ($20,000 for LEED Silver, $25,000 for LEED Gold, and $30,000 for LEED Platinum).

Private Examples

Silicon Valley Power – Commercial Energy Efficiency Rebate Program
This utility has pledged a maximum $600,000 per person/company per year rebate for energy efficiency related projects that decrease electrical usage.

U.S. Green Building Council
The USGBC will offer full certification fee rebates for any project that receives Platinum certification. Additionally, LEED for Existing Buildings registration is free for all certified LEED for New Construction and LEED for Core and Shell buildings.

Pennsylvania Sustainable Energy Fund (SEF)
SEF provides equity investments, commercial loans and grants, business partnerships, and venture/debt capital relationships for eligible sustainable energy projects.

LOANS

States and municipalities can establish a loan fund to be used specifically for green improvements. This type of program requires an initial investment and start-up costs, but generally these incentives have proven profitable in the long run.

Jurisdictions can use performance contracting to provide loans at reduced interest rates to developers that agree to build to specified green standards. This method appeals to developers who can repay the loan through increased appraisal value of the green building as well as owners who are able to repay the loan through future energy savings.

State Examples

Alabama Biomass Energy Program
This program provides up to $75,000 to help defray the interest on loans companies receive to install biomass energy projects. The loans cannot be more than two percent above the prime rate.

The New York State Energy Research and Development Authority Program
This program provides low interest loans (four percent below market rates) for energy efficiency measures and building materials that meet New York green building standards.

Private Examples

Harvard University's Green Campus Initiative
The Green Campus Loan Fund provides capital for high performance campus design, operations, maintenance, and occupant behavior projects. Basic project eligibility guidelines state that projects must reduce the University's environmental impacts and have a payback period of 5-10 years or less.

Alameda County (California) Power and Telecom – Commercial Energy Efficiency Loan Program
This program provides low-interest loans for certain green technologies, including energy-efficient lighting.

Pennyrile (Kentucky) Rural Electric Cooperative – Commercial Energy Efficiency Loan Program
The Pennyrile RECC offers non-residential customers loans, up to $25,000, to increase the efficiency of their facilities. The interest rate is fixed and can be repaid during a period of up to five years.

INSURANCE

Insurance is another important focus area in the design and development of green buildings. Insurers can play a powerful role in communicating the benefits of green buildings and homes that deliver energy end environmental efficiency, are more resilient to storm damage, and are safer and healthier for their occupants.

Fireman's Fund Insurance Company, a member of Allianz Group, exemplifies how insurers can lead the way. The company is a member of the U.S. Green Building Council and communicates the advantages of green buildings in a variety of forums such as at the AIA Developers Roundtable. Moreover, the company's innovative Green-Gard (SM) suite of commercial building coverages provides tangible incentives including:

- **Green Upgrade Coverages** cover costs to rebuild and replace standard buildings that have a loss with specified green alternatives
- **Green Certified Building Coverages** to protect investments in a vegetated roof, alternative water system, or green power generating equipment in the case of a loss. The coverage also covers the cost to hire a Leadership in Energy and Environmental Design (LEED®)-accredited

many communities need to enhance and augment their permitting staff in order for these programs to work at their full potential. In order for expedited permitting programs to be successful, staff should also have a comprehensive understanding of the green rating systems utilized within a city/county.

Building permitting bodies must have knowledgeable, trained professionals at all levels of review. These permitting professionals should be trained in LEED and/or other green rating systems used in the community. Unfortunately, one of the problems faced by many smaller permitting agencies is that they do not have the time or money to adequately staff their existing responsibilities, let alone additional requirements, and therefore solutions need to be found.

The resource crunch faced by communities can be solved in multiple ways. These can include federal/state funding for local initiatives as well as subsidies from the private sector. Additionally, there is a need to study existing programs to better understand the complexities and benefits in order to develop more efficient programs.

Some jurisdictions, like San Francisco, have hired "embedded employees" from the private sector, who conduct the work of permitting officials. Such programs also offer career path motivations for professionals who choose to become specialized in green development. Third party approval systems can also be used to ensure that the permitting process is handled properly, but this may require additional funding.

As more projects go green additional pressure is put on permitting agencies, because of increased capacity. Expedited permitting, if effectively managed, can be very successful. Cities should realize that this is a potential revenue generator for their jurisdiction, as projects that move forward quickly increase tax revenue for communities.

State Examples

Hawaii HRS § 46-19.6
Requires county agencies that issue building permits to establish an expedited permitting process, at no cost, for private buildings that meet or exceed the USGBC's LEED Silver rating, GBI's two green globes rating, or another comparable state-approved, nationally recognized, and consensus-based system.

South Carolina S. 377 (*passed Senate, awaiting House committee hearing*)
This bill offers Resident taxpayers constructing a commercial building that meets USGBC standards can participate in an expedited permitting process upon the posting of an environmental performance bond.

City/County Examples

Santa Monica Ordinance § 10S.050
Santa Monica's ordinance provides an expedited permitting process for new buildings and major renovations (more than 50 percent) that receive LEED certification.

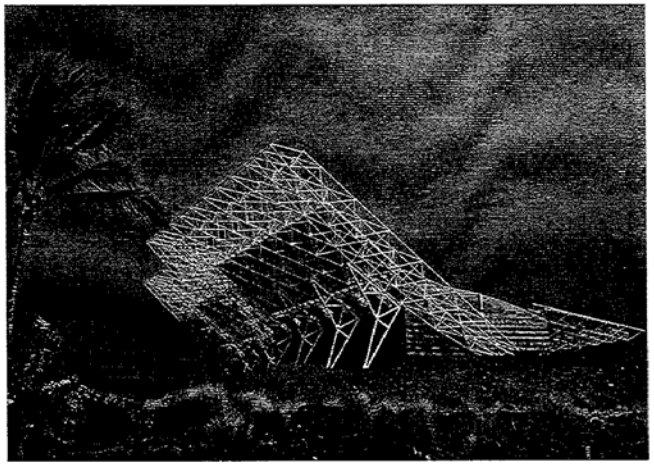
To read more on this program, click here.

Chicago Green Permit Program
This program reduces the permitting process for developers and owners who build green to less than 30 business days and, in some cases, less than 15 days. The length is determined by the number of green building elements, the LEED certification level, and the project complexity.

NET METERING

Many jurisdictions allow consumers who own renewable energy facilities, such as wind or solar power instruments, to generate their own energy. For net metering to be a powerful incentive, it is important for consumers who generate power to be able to sell excess power back to the community.

This process can develop clean energy as an industry, much like cell towers, and buildings could potentially sell space for photovoltaics to companies. Installing photovoltaic arrays on big box retail buildings, could generate substantial amounts of electricity and entice developers and owners to build not only energy-efficient, but energy producing buildings. Mandating the use of renewable sources, at times a controversial topic, can also help to make this process faster. Electric companies, though, should be included in this process, as it is complex and creates competition for generation.



Hawaii Gateway Energy Center, Kailua-Kona, HI, AIA/COTE 2007 Top Ten Green Projects award recipient. Ferraro Choi and Associated, Honolulu, Hawaii. Photo by David Franzen

Examples

Illinois Net Metering Law
This law establishes a net electricity metering program in the state. Illinois encourages diversification in energy resources by encouraging eligible customers to install equipment measuring the amount of electricity generated and used going in both directions, and therefore increase renewable energy generation.

Interstate Renewable Energy Council Model Net Metering Rules
These rules, developed by the Interstate Renewable Energy Council, apply to systems up to two megawatts in capacity. They have been particularly beneficial in New Jersey and Colorado.

California
This program allows entities to "bank" excess power, subject to certain limits, and deducts energy production from the total energy use. However, there is no ability in this program to sell excess energy back to the grid.

hours per year. Tucson has made $100,000 available for credits for new buildings and an additional $100,000 for existing buildings.

REBATES AND DISCOUNTS ON ENVIRONMENTAL PRODUCTS

Discounts on environmental products are an option that may require initial investment but will pay for itself in the long term. Municipalities can purchase energy efficient appliances in bulk and offer discounted prices, passing the savings on to citizens who buy these items from the city. Some jurisdictions offer other financing assistance and often provide "preferred lists" of appliances.

Alternatively, a city can simply provide a rebate, which is easier to administer. These programs can work at any level of government and have the advantage of being highly targeted. Jurisdictions especially concerned with water conservation or energy use can directly affect efficiency and target the rebates appropriately.

State Examples

New York State Energy Research and Development Authority
This program offers rebates on certain Energy Star qualified commercial products. Rebates typically range from $75-$150 but can reach $750 for items such as commercial steam cookers.

Florida Executive Order #07-126
Florida's EO allows for the development of a climate-friendly preferred products list, including products and vendors with clean energy efficiency or other environmental benefits.

City/County Examples

Pasadena, California, Water and Power High Performance Building Program
Developers who exceed the minimum certification will receive one month's electricity savings for each percent efficiency better than code that the building performs, not to exceed a value of $100,000.

Elizabeth, New Jersey
Elizabeth, New Jersey, offers up to $5,000 in rebates for documented energy saving expenses in low-income housing developments.

LEASING ASSISTANCE

Jurisdictions can lease energy efficient equipment to businesses and residents so that the initial cost of purchasing and/or installing the equipment is passed on to the state or local government. Since a city or state has significant purchasing power, it can pass the savings of buying in bulk on to citizens by leasing this equipment. In doing so, it is making energy efficiency attainable in instances where it might not be affordable otherwise. By providing this assistance, cities and states may have to make an initial investment of funds but generally will make most of the money back from payments on the equipment.

State Example

Mississippi Energy Efficiency Lease Program
This allows universities, community colleges, public hospitals, private "nonprofit" hospitals, state agencies, local governing authorities, and school districts to lease-purchase energy efficiency services and/or equipment for up to 10 years. Through the Energy Efficiency Lease Program, public entities have access to pre-arranged, tax-exempt lease purchase financing.

To read more on this program, click here.

City/County Example

City of Santa Clara, California, Water Heating Program
Solar equipment is offered by the city for the heating of swimming pools, water processing, and domestic hot water. The pieces of hardware (solar collectors, controls, and storage tanks) are owned and maintained by the city under a rental agreement. The renter pays an initial installation fee and a monthly utility fee.

Recommendations and Conclusion

State and local governments are working to incentivize new green building design and construction using a variety of techniques. In many cases these programs have been successful in accomplishing their goals. However, some have faced struggles in encouraging sustainable construction, including the costs of new programs, resource reallocation, and implementation difficulties. It is important for jurisdictions, as they develop green building initiatives, to incorporate the appropriate incentive systems in order to develop a holistic green strategy for their community.

Existing incentive programs range from those that are short-term to those that are longer term in nature. This divergence can be problematic for certain developers, depending on the preferred development business model. Often, there is more inducement to design and build green if the development community knows that the incentive will still be in existence by the time the project comes to fruition. As such, incentives with longer life spans combined with inducements for limited time horizon investors are generally the most effective in encouraging green construction.

The effectiveness of each incentive option is also highly dependent on more research and increased education. Case studies on how different programs would develop and operate in cities with differing issues (e.g., population, density, proximity to a metro area, etc.) would strengthen the argument for proponents of these tools to implement them in their own jurisdictions. In addition, education is a vital factor in making many of the green incentives successful. For example, expedited permitting and permit/zone fee reductions require trained professionals in multiple departments throughout a given municipality who have knowledge in green design and green rating systems. On the other end of the spectrum, public education campaigns can be very effective in informing consumers and the public at-large. If consumers demand green buildings, architects, developers, and owners will be more likely to provide them.

As green building becomes more the norm, it puts a strain on the capacity of the building department's staff and resources. Additional incentives from the state and federal government would go a long way towards alleviating this strain. For example, state and/or federal subsidization of the expedited permitting process can help ease the strain on stretched local officials.

When developing incentive packages, it is best to incorporate a variety of techniques that will target a wide spectrum of builders, developers, owners, and operators. Incentives should be available that will entice each group—owners and operators so that they demand green buildings, and builders and developers so that it is profitable to build green. Incremental tax rebates—those offered at different levels of development—may be useful in accomplishing this. Incentive packages must also address the needs of smaller businesses, which oftentimes cannot afford the upfront

U.S. homeowners, after rebuilding homes affected by last year's Southern California wildfires following green environmental safety and efficiency standards that are intended to save energy and also reduce damage in future fires. The company plans to roll-out green coverage upgrades for homeowners in other, selected states this year.

professional to oversee the repairs, and even reimburses loss of income incurred through the use of alternative power generating equipment.

- **Building Commissioning Coverages** that cover the cost to hire a commissioning engineer to ensure that building systems (HVAC, electric and plumbing) operate at peak performance and in alignment with one another.

The company also has modified builders risk or owners risk forms in a variety of ways, for example by broadening terms for "rental value" to include the additional time needed to comply with the extra procedures and process necessary to meet the level of green certification incorporated into the building design prior to the loss.

Fireman's Fund Insurance Company also has became the first insurer to offer green insurance to

TECHNICAL ASSISTANCE/DESIGN ASSISTANCE

Education is a key component of all incentive options. Demand for sustainable design is increasing rapidly, but even in the development community there are still questions over exactly what kind of green design techniques are most effective and in demand. Enthusiastic political advocates of sustainable design will continue to raise awareness but this must be matched by technical expertise.

It is important for government to provide quality service to the development and design community by training planners, building inspectors, and other local officials, as these are the main points of contact between the jurisdiction and private building interests. Accredited officials have the opportunity to develop better master plans and use green building checklists as guides to declare a building "certifiable." Well-trained local officials can also educate the community at large and promote voluntary and residential efforts. Jurisdictions can even earn revenue by offering consulting on green building projects. This fosters a culture of sustainable design throughout the community, and, in the long term, this can be much more effective than formal legislation and regulations.

State Example

States have a limited ability to pursue design assistance programs because they seldom deal with building permits, inspections, and planning. However, there are still options they can use to provide assistance. Leveraging public utilities or funding a campaign to educate citizens and local officials on the benefits of green building can increase both public and private demand.

Minnesota Next Generation Energy Act of 2007
This bill requires utilities to create conservation improvement programs offering a variety of energy saving options for consumers. The Department of Commerce is responsible for maintaining an inventory of the cost effectiveness for energy savings programs, techniques, and technologies. This information will be used to guide both public and private development decisions.

City/County Examples

Cities and counties are generally the best equipped to develop these programs because they primarily serve as the point of contact between developers and government.

St. Paul, Minnesota, Resolution 12407
This law requires at least a total of five LEED accredited personnel to be employed within the city departments of planning, economic development, public works, licensing and inspections, environmental protection, and parks and recreation.

Seattle "Implement" Design Tool & Technical Assistance
The "Implement" tool is one of many educational features that Seattle offers through the Department of Planning and Development. At the department's Web site, interested builders can learn more about innovative ways to green their projects. If the wealth of online information is not enough, builders can find more personal assistance from the highly trained staff in the Department of Sustainability and Environment.

PERMIT/ZONE FEE REDUCTION

This option is almost exclusively for use by cities rather than states and counties. In return for reaching specific levels of LEED or other green rating systems, several jurisdictions waive or partially reimburse the application, building, or permit fees charged. This directly affects the party funding the construction of a building, so it can be a particularly attractive incentive.

Often, developers with a short-term investment outlook have less incentive to build more efficient structures because they will not occupy buildings long-term. Therefore, these developers will generally not see the returns from greater efficiency and lower utility costs. A reduction in the initial building construction fees will affect these developers most dramatically. Jurisdictions must weigh long-term versus short-term considerations carefully. The hoped for result is that rebates grow exponentially as green building proliferates, so municipalities should prepare for increased usage to make sure these programs are sustainable. This strategy can ultimately be one that is effective and highly beneficial for the municipality.

City/County Examples

Asheville, North Carolina
Asheville waives building permit fees ($50-$100) for certain energy efficient technologies and certifications (i.e. EnergyStar® rating, solar-energy systems, wind turbines, etc.). This can be applied to fees for mixed-use commercial buildings, provided the building includes residential space. The program also reduces plan review fees by 50 percent for any building seeking LEED certification. These fee waivers are done through rebates.

Riverhead, New York, Code 52-10
This code provides a building permit fee discount to those who install energy conservation devices on residential or commercial buildings. All such devices now require a flat $150 fee. Prior to this program, solar panel installation fees could reach up to $1,000.

To read more on this program, click here.

Tucson, Arizona, Resolution No. 20193
Tucson's resolution provides for a credit, up to $1,000, or a permit fee refund (whichever is lower) for the installation of a qualifying solar energy system. The system must be able to displace at least 1,500 kilowatt

Genzyme Center, Cambridge, Mass., AIA/COTE 2004 Top Ten Green Projects award recipient. Behnisch, Behnisch and Partner Architect, Venice, Calif. Photo by Anton Grassl.

savings on utilities, and consumer demand. Governments have begun to respond with ways that make green building the preferred option in new construction or rehabilitation. Financial considerations are the fundamental basis of any business decision and must always be taken into account as the government pursues various green building incentive options. A developer wants to pursue a project that moves forward quickly and offers the most financial benefits to the company. The key is that these incentives must be easy to understand, simple to pursue, and strong enough to make the whole process worthwhile.

America is a country that thrives on its diversity. Incorporating a diversity of ideas and strategies, and utilizing the benefits that each level of government can provide, governments can entice many businesses to "go green." The AIA and its partners would like to see this development continue; some jurisdictions and state governments may need to rework and rethink their existing incentive programs to ensure smooth implementation while others will start from scratch. Additional federal support incentivizing green building through block grants, direct tax credits, small business loans, and other such tools could also further sustainability initiatives. However, costs even if they will gain financially in the long-run. Grants and loans may be two ways to help small businesses build green and can be especially effective in jurisdictions that do not yet have established green building programs and need leaders in green design.

Building developers, operators, and potential buyers want to design and operate green buildings for a variety of reasons, including long-term resale value, cost

the most important factor is that the mix of programs a community or state provides makes green building easier and smarter than non-green construction. It is our hope that this report will offer cities, counties, and states a more well-rounded understanding of the current green incentive landscape and provide government bodies with ideas that they can adapt and mold to suit their unique needs in order to continue the trend towards green building.

Local Green Building Incentives Quick Reference Matrix

Cities	State	Population	Website	Incentives
Scottsdale	Arizona	226,013	http://www.scottsdaleaz.gov/greenbuilding/	Expedited permitting, Education through the Sustainability Department. Additional programs promote solar, and gray water management
Anaheim	California	331,804	www.anaheim.net (dept. of public utilities/ green connection)	Expedited permitting, Waive the permit fees up to $50,000, Up to $30,000 can be granted for certification, Additional incentives and rebates for energy efficiency
Berkeley	California	100,744	http://www.cityofberkeley.info/sustainable/	Permit assistance (non-financial)
Burbank	California	104,108	http://www.burbankca.org/building/bgreen.htm	Permit discounts
Glendale	California	200,065	www.ci.glendale.ca.us	Floor Area and density bonuses within downtown specific plan
Mission Viejo	California	94,982	http://cityofmissionviejo.org/depts/cd/green_building/	Expedited permitting
Oakland	California	396,274	www.sustainableoakland.com	Expedited permitting, Permit fee refund up to $15K
Petaluma	California	54,846	http://www.cityofpetaluma.net/cdd/big/index.html	Rebate of $500 per unit
Richmond	California	102,186		Solar installation rebate
Riverside	California	290,086		Expedited permitting, Tax and permit rebates
San Buenaventura (Ventura)	California	104,017		Expedited permitting
San Diego	California	1,255,540		Expedited permitting, Energy savings rebates
San Francisco	California	739,426	http://sfgov.org/site/frame.asp?u=http://www.sfenvironment.org	Expedited permitting
Santa Barbara	California	85,899	www.builtgreensb.org	Expedited permitting
Santa Cruz	California	54,760	http://www.ci.santa-cruz.ca.us/pl/building/tat-ab.html	Expedited permitting, Awards are given for high levels of certification
Sunnyvale	California	128,902	http://sunnyvale.ca.gov/Departments/Community+Development/Planning+Division/Planning-Green+Buildings.htm	Floor Area Ratio Bonus
Fort Collins	Colorado	128,026	http://www.fcgov.com/cdnew/pdf/green-bldg.pdf	Integrated Design assistance
Gainesville	Florida	108,184	http://www.usgbc.org/ShowFile.aspx?DocumentID=1972	Expedited permitting, 50% off permit fees, Discounted appliances through the utilities company