



# MILPITAS PLANNING COMMISSION AGENDA REPORT

## PUBLIC HEARING

Meeting Date: May 13, 2009

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**APPLICATION:** PRESENTATION ON THE PROPOSED GREEN BUILDING ORDINANCE

APPLICATION SUMMARY: N/A

LOCATION: City wide  
APPLICANT: City of Milpitas

**RECOMMENDATION:** Staff recommends that the Planning Commission close the public hearing after receiving the presentation and provide comments.

PROJECT DATA:  
General Plan/  
Zoning Designation: N/A

Overlay District: N/A  
Specific Plan: N/A

CEQA Determination: N/A

PLANNER: James Lindsay, Planning & Neighborhood Services Director

ATTACHMENTS: A. Draft Green Building Ordinance  
B. CA Cities Green Building Table

**BACKGROUND**

Pursuant to the City Council's direction, staff has created a green building ordinance that would establish minimum green building standards to increase energy efficiency and encourage water and resource conservation. The draft ordinance would create a new chapter within Title II - Building Regulations of the Municipal Code and does not include any amendments to the zoning ordinance (Chapter 10 of Title XI). The purpose of this presentation is to review the draft ordinance with the Planning Commission and receive comments. The City Council Transportation and Land Use Subcommittee reviewed a framework of this ordinance and recommended approval to the City Council.

Several Bay Area cities have adopted green building ordinances or policies, and staff has reviewed the disadvantages of their different approaches. Through this effort we also contacted representatives of both residential and commercial development groups to understand their concerns with existing green building ordinances. In summary we found that there was general acceptance of both the US Green Building Council's Leadership in Energy and Environmental Design (LEED) and the Build It Green programs. LEED is used predominantly to rate commercial construction and Build It Green is used to rate most residential construction. Achieving the LEED Silver and 50 Green Point levels was considered to be generally achievable without significant cost increases for most types of construction.

The primary concern with some green building ordinances was the requirement for third party certification. This requires a project to be reviewed by an outside plan reviewer and inspector trained in these programs which can add additional cost and time to a project. Obtaining LEED certification from the US Green Building Council can also be very costly.

Our recommendation is to establish LEED Silver as the required standard for new commercial construction and future City buildings over 50,000 square feet. The recommended residential standard is 50 Green Points for new residential projects providing five or more units. Attached is a table compiled by the Attorney General's Office comparing ordinances from other California cities. Expedited plan review is being recommended as an incentive for projects to obtain higher levels (Gold or above) or points (75+). Given the concerns surrounding certification and third party reviews, we are recommending that several Building & Safety Plan Checkers and Inspectors receive the necessary training to confirm compliance with the LEED and Build It Green programs. This will allow concurrent plan reviews and avoid the costly certification process. The effective date of the ordinance is proposed to be August 1, 2009 and would only affect projects submitted after that date.

**RECOMMENDATION: STAFF RECOMMENDS THAT** the Planning Commission:

1. Receive the presentation
2. Close the Public Hearing
3. Provide comments on the draft ordinance.

*Attachments:*

- A. Draft Green Building Ordinance
- B. CA Cities Green Building Table

# **Draft Green Building Ordinance New Chapter 20 of Title II (Building Regulations) (Ord. 39.791)**

## **Chapter 20 Green Building Regulations**

### **20-1 Purpose and Intent**

### **20-2 Definitions**

### **20-3 Standards for Compliance**

### **20-4 Incentives for Compliance**

### **20-5 Administrative Procedures and Implementation of Regulations**

### **20-6 Hardship or Infeasibility Exemption**

### **20-7 Appeal**

### **20-8 Effective Date**

## **Section 1 Purpose and Intent**

### **1.01 Purpose and Intent**

The purpose and intent of this Chapter is to enhance the public health and welfare by promoting the environmental and economic health of the City through the design, construction, maintenance, operation and deconstruction of buildings and other site development by incorporating green building practices into all development. The green building provisions referred to in this Chapter are designed to achieve the following goals:

1. Increase energy efficiency;
2. Encourage water and resource conservation;
3. Reduce waste generated by construction projects; and
4. Promote the health of residents, workers and visitors to the City.

## **Section 2 Definitions**

### **2.01 Purpose.**

The purpose of this Section is to ensure precision in interpretation of this Chapter. This section provides definitions of terms and phrases used that are technical or specialized, or may not reflect common usage. If any of the definitions in this Chapter conflict with definitions in other provisions of the Municipal Code, these definitions shall control for the purposes of these Green Building Regulations. If a word is not defined in this Chapter, or other provisions of the Municipal Code, the most common dictionary definition is presumed to be correct.

### **2.02 Definitions.**

The following terms shall have the ascribed definition for the purposes of applying the criteria of this chapter.

**A**

“**Addition**” means new construction square footage added to an existing structure.

“**Applicant**” means any entity that applies to the city for the applicable permits to undertake any covered project within the city, or any subsequent owner of the site.

## C

“**Compliance Official**” means the Chief Building Official or designee.

“**Compliance Threshold**” means the minimum number of points or rating level of a green building rating system that must be attained for a particular Covered Project.

“**Covered Project**” means any planning entitlement application(s) or building permit application(s) for, commercial (non-residential) new construction or renovations, for any single-family, two-family or multi-family new construction or renovation, or for city-sponsored construction projects subject to the Standards for Compliance section of this ordinance.

## G

“**Good Faith Effort**” means a project that has not met the required compliance threshold, but for extenuating reasons or reasons beyond the control of the applicant, the Compliance Official has found the project meets the good faith effort provisions.

“**Green Building**” means a whole systems approach to the design, construction and operation of buildings that substantially mitigates the environmental, economic, and social impacts of buildings. Green building practices recognize the relationship between the natural and built environments and seek to minimize the use of energy, water and other natural resources and provide a healthy, productive indoor environment.

“**Green Building Project Checklist**” means a checklist or scorecard developed for the purpose of calculating a green building rating.

“**Green Building Rating System**” means the rating system associated with specific green building criteria and used to determine compliance thresholds. Examples of rating systems include, but are not limited to, the LEED and GreenPoint Rated systems.

“**GreenPoint Rated**” means a residential green building rating system developed by the Build It Green organization.

“**GreenPoint Rated Verification**” means verification of compliance by a certified GreenPoint Rater, resulting in green building certification by Build It Green including green points allocation across all of the resource categories.

## L

“LEED®” means the “Leadership in Energy and Environmental Design” green building rating system developed by the U.S. Green Building Council.

## M

“**Mixed Use**” means the construction of a building or buildings that include both commercial and residential uses.

“**Multi-Family Residential**” means a building containing three or more attached dwelling units.

## N

**New Construction, Commercial (Nonresidential).** “Commercial (Nonresidential) New Construction” means the construction of a new retail, office, industrial, warehouse, service, or similar building(s), or additions to such building(s).

**New Construction, Residential.** “Residential New Construction” means the construction of a new single-family or two-family dwelling unit or of new or replacement multi-family residential building(s), or additions to such building(s).

## P

“**Priority Plan Review**” means a covered project meeting the Incentives for Compliance will receive building permit plan review comments from all City Departments on the first plan review within fifty percent (50%) less time than what would normally be scheduled for the scale and size of the project. The plan review would be performed during regular working hours and would be scheduled ahead of other plan reviews for which off-hour fees were not already paid.

## Q

“**Qualified Green Building Professional**” means a person including but not limited to an employee of the City, trained through the USGBC as a LEED accredited professional or through Build It Green as a certified green building professional or similar qualifications if acceptable to the Compliance Official.

## R

“**Renovation**” means any rehabilitation, repair, remodeling, change, or modification to an existing building, where changes to floor area and the footprint of the building are negligible..

## S

“**Single-Family or Two-Family Residential**” means a single detached dwelling unit or two units in a single building.

“**Square Footage,**” for the purposes of calculating commercial, multi-family residential, and single-family and two-family new construction square footage, means all new and replacement square footage, including basement areas [seven (7) feet or greater in height] and garages, except that unconditioned garage space shall only count as fifty percent (50%) of that square footage. Areas demolished shall not be deducted from the total new construction square footage.

**Section 3 Standards for Compliance**

**3.01 Covered Projects.**

Standards for Compliance for covered projects are identified in Table 3.01-1, Green Building Standards for Compliance, of this Chapter.

**Table 3.01-1  
Green Building Standards for Compliance**

Type of Project	Building Improvements		
	Checklist Required	Minimum Threshold	Verification Required
<b>Residential</b>			
New Construction: < five (5) units	Build it Green or LEED	Not Applicable	No
New Construction: ≥ five (5) units	Build it Green or LEED	50 Green Points (Build it Green) or equivalent in LEED	Yes
<b>Nonresidential</b>			
New Construction 500 - 25,000 s.f.	LEED	Not Applicable	No
New Construction: Between 25,000 and 49,999 s.f.	LEED	New Construction: LEED Certified	Yes
New Construction or renovations: ≥ 50,000 s.f.	LEED	LEED Silver	Yes
<b>City-Owned Buildings</b>			
New construction over 5,000 s.f. or renovations over 25,000. s.f.	LEED	LEED Silver	Yes
<b>Mixed Use</b>	Residential and Commercial criteria as applicable to each residential and commercial component of the project.		

All square footage is gross.

**3.02 Exempted projects.**

The following projects are exempted from the provisions of this Chapter:

1. Buildings designated as a local Cultural Resource or listed on California Register of Historic Resources or the National Registry of Historic Places.
2. Remodels or renovations to residential buildings that do not add more than five (5) new dwelling units.

## **Section 4 Incentives for Compliance**

### **4.01 Purpose.**

To further encourage higher levels of green building compliance for a project, incentives are offered for Residential and Commercial (Nonresidential) projects.

### **4.02 Residential.**

Projects meeting the following threshold shall be eligible for Priority Plan Review:

1. Projects earning seventy-five (75) Green Points or equivalent in LEED.

### **4.03 Commercial (Nonresidential).**

Projects meeting the following threshold shall be eligible for Priority Plan Review:

1. Projects meeting LEED Gold and above.

## **Section 5 Administrative Procedures and Implementation of Regulations**

### **5.01 Administration.**

**A. Responsibility of the Compliance Official.** The responsibility of the Compliance Official shall be as follows:

1. The Compliance Official shall promulgate any rules and regulations necessary or appropriate to achieve compliance with the requirements of this Chapter. The rules and regulations shall provide, at a minimum, for the incorporation of green building requirements of this Chapter into checklist submittals with planning entitlement and building permit applications, and supporting design, construction, or development documents to demonstrate compliance with this Chapter.
2. The Compliance Official shall have the responsibility to administer and monitor compliance with the green building requirements set forth in this chapter and with any rules and regulations promulgated thereunder, and to grant exemptions from the requirements, where so authorized.

## 5.02 Implementation of Regulations.

Compliance with the provisions of this chapter shall be listed as a condition of approval on any discretionary permit approval, and on the building plans for building permit approval, for any Covered Project.

**A. Compliance Procedures.** The procedures for compliance documentation shall include, but not be limited to, the following:

1. Preliminary Documentation. Applicants for a Covered Project are encouraged, but not required, to meet with the Compliance Official or his or her designated staff, in advance of submittal of an application, to determine required green building thresholds for compliance and to review the proposed green building program and details to achieve compliance.
2. Discretionary Planning Entitlements. Upon submittal of an application for any discretionary planning entitlement for any Covered Project, including but not limited to Site Development Permits, Conditional Use Permit, Planned Unit Development or Variance requests, application materials shall include the appropriate completed checklists, as required by the Section 3, Standards for Compliance, of this Chapter, accompanied by a text description of the proposed green building program and expected measures and milestones for compliance.
3. Building Plan Check Review. Upon submittal of an application for a building permit, building plans for any Covered Project shall include a checklist and green building program description, reflecting any changes proposed since the planning entitlement phase (if a planning entitlement was required). The checklist shall be incorporated onto a separate plan sheet included with the building plans. A qualified green building professional shall provide evidence of adequate green building compliance or documentation to the Compliance Official to satisfy the requirements of Section 3, Standards for Compliance, of this Chapter, prior to issuance of a building permit.
4. Documentation for Final Building Inspection, Verification, and Occupancy. Prior to scheduling of final building inspection and occupancy for any Covered Project, a Qualified Green Building Professional shall provide evidence of adequate green building compliance or documentation to the Compliance Official to satisfy the requirements of Section 3, Standards for Compliance, of this Chapter. This information shall include, but is not limited to:
  - a. Documentation that verifies incorporation of the design and construction related credits specified in the project approval for the Covered Project. This documentation can be in the form of inspection records when a City Building Inspector serves as the Qualified Green Building Professional;

- b. A letter from the Qualified Green Building Professional that certifies that the Covered Project has been constructed in accordance with the approved green building project checklist;
  - c. Any additional documentation that would be required by the LEED reference guide for LEED certification (if required), or by the GreenPoint Rated manuals for GreenPoint Rated certification (if required); and
  - d. Any additional information that the applicant believes is relevant to determining that a good faith effort has been made to comply with this chapter.
5. Final Determination of Compliance and Good Faith Effort to Comply. Prior to final building inspection for a Covered Project, the Compliance Official shall review the documentation submitted by the applicant in Section 5.02 (A)(4) above, and determine whether the applicant has achieved the required compliance threshold as set forth in Section 3, Standards for Compliance, of this Chapter, and/or demonstrate that measures are in place to assure compliance not later than one year after approval of final building inspection.

If the Compliance Official determines that the applicant has met the requirements of Section 3 of this Chapter, for the project, the final building inspection may proceed, provided the Covered Project has received approval of all other inspections required by the Compliance Official.

If the Compliance Official determines that the required green building rating has not been achieved, the Compliance Official shall find one of the following:

- a. Good Faith Effort to Comply: When an applicant submits a request in writing to the Compliance Official for approval of a good faith effort to comply, the Compliance Official shall determine that the applicant has made a good faith effort to comply with this chapter when finding that either:
  - i. The cost for assuring compliance is disproportionate to the overall cost of the project, or
  - ii. The green building materials and technologies on the green building checklist are no longer available or not yet commercially available, or
  - iii. At least eighty percent (80%) of the required green point credits have been achieved, and measures are in place to assure full compliance not later than one year after approval of the final building inspection.

Determination of a good faith effort to comply shall be made separately for each item on the green building project checklist. Granting of a good faith effort to comply for one item does not preclude the need for the applicant to comply with the other items on the green building checklist.

- b. **Non-Compliant Project.** If the Compliance Official determines that the applicant has not made a good faith effort to comply with this chapter, or if the applicant fails to submit the documentation required within the required time period, then the project shall be determined to be non-compliant, and the final inspection and approval for the project shall be withheld. A final inspection shall not take place until the applicant has implemented equivalent alternate measures approved by the Compliance Official or unless an exemption is granted for the project.
6. **Non-Compliance.** If, as a result of any inspection, the City determines that the Covered Project does not or is unlikely to comply with the approved plans or green building checklist, a full stop work order shall be issued if the Compliance Official determines that continuation of construction activities will jeopardize the project's ability to meet the required compliance threshold. The stop order shall remain in effect until the Compliance Official determines that the project will be brought into compliance with the approved plans and/or checklist.
7. **Lack of Inspectors.** If the Compliance Official determines that there is a lack of Qualified Green Building Professionals available to perform green building inspections within a timely manner, the Compliance Official may allow the architect or designer of the project to determine that green building requirements have been met.

## **Section 6 Hardship or Infeasibility Exemption**

### **6.01 Exemption.**

If an applicant for a covered project believes that circumstances exist that make it a hardship or infeasible to meet the requirements of this ordinance, the applicant may request an exemption. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.

The applicant shall indicate in the pre-permitting documentation the maximum number of credits he or she believes is practical or feasible for the covered project and the circumstances that he or she believes make it a hardship or infeasible to comply fully with this Chapter. Such circumstances may include, but are not limited to, availability of markets for materials to be recycled, availability of green building materials and technologies, and compatibility of green building requirements with existing building standards.

1. **Granting of Exemption:** If the City Manager or designee determines that it is a hardship or infeasible for the applicant to meet fully the requirements of this Chapter based on the information provided, the City Manager or designee shall determine the maximum feasible number of credits reasonably achievable for the covered project and shall indicate this number on the pre-permitting documentation submitted by the applicant.
2. **Denial of Exemption:** If the City Manager or designee determines that it is possible for the applicant to fully meet the requirements of this Chapter, he or she shall so notify the applicant in writing.

## **Section 7 Appeal**

### **7.01 Appeals**

1. Any aggrieved applicant or person may appeal the determination of the Compliance Official regarding: (a) the granting or denial of an exemption; or (b) compliance with any other provision of this ordinance.
2. Any appeal must be submitted in accordance with Title I, Section 5, Appeals to Council, of the Milpitas Municipal Code.
3. The appeal process shall follow the procedures set forth in Title I, Section 5, Appeals to Council, of the Milpitas Municipal Code.

## **Section 8 Effective Date**

### **8.01 Effective Date of Ordinance.**

This Green Building Ordinance becomes effective on August 1, 2009 and applies to Covered Projects for which planning application(s) are submitted after the effective date or Covered Projects, not requiring planning entitlements, for which building permit applications are submitted after the effective date.



### **Local Government Green Building Ordinances in California**

In recent years, numerous local governments in California have implemented “green” building ordinances. These measures can increase energy efficiency, reduce greenhouse gas emissions, and decrease other harmful environmental impacts. This document identifies the various approaches to green building ordinances that jurisdictions have taken and the most common features of the measures.

The following cities in California have enacted mandatory Green Building Ordinances:

<b>City</b>	<b>Ordinance</b>	<b>Effective Date</b>	<b>Link</b>
Albany	Ord. 06-016	July 2007	<a href="#">Here</a>
Brisbane	Ord. 524	January 2008	<a href="#">Here</a>
Calabasas	Ord. 2003-185	February 2004	<a href="#">Here</a>
Cotati	Res. PC No. 06-24	January 2008	<a href="#">Here</a>
Culver City	Ord. No. 2008-004	March 2008	<a href="#">Here</a>
Livermore	Ord. No. 1804	January 2008	<a href="#">Here</a>
Long Beach	Current Policy	Ord. Pending	<a href="#">Here</a>
Los Altos	Ord. No. 07-315	December 2007	<a href="#">Here</a>
Los Angeles	Ord. No. 179820	May 2008	<a href="#">Here</a>
Novato	Ord. No. 1503	October 2005	<a href="#">Here</a>
Palm Desert	Ord. No. 1124	February 2007	<a href="#">Here</a>
Palo Alto	Ord. No. 5006	July 2008	<a href="#">Here</a>
Pasadena	Ord. No. 7031	May 2008	<a href="#">Here</a>
Pleasanton	Ord. No. 1873	January 2003	<a href="#">Here</a>
Rohnert Park	Ord. No. 782	July 2007	<a href="#">Here</a>
San Francisco	Ord. No. 180-08	August 2008	<a href="#">Here</a>
San Jose	Policy No. 6-32	Ord. Pending	<a href="#">Here</a>
San Rafael	Ord. No. 1853	August 2007	<a href="#">Here</a>

San Mateo (Co.)	Ord. No. 04411	March 2008	<a href="#">Here</a>
Santa Barbara	Ord. No. 5446	March 2008	<a href="#">Here</a>
Santa Cruz	Ord. 2005-29	January 2007	<a href="#">Here</a>
Santa Monica	Ord. No. 2261	May 2008	<a href="#">Here</a>
Santa Rosa	Ord. No. 3869	June 2008	<a href="#">Here</a>
Sebastopol	Res. 5454	March 2005	<a href="#">Here</a>
Marin (Co.)	Ord. No. 3492 Code Ch. 22.42	June 2008	<a href="#">Here</a> <a href="#">Here</a>
Windsor	Ord No 2007-215	June 2007	<a href="#">Here</a>
West Hollywood	Ord. No. 07-762	October 2007	<a href="#">Here</a>

### ***Green Rating Systems***

The enactment of local green building requirements has been facilitated by the development of several independent rating systems increasingly used in the building industry to objectively evaluate “green” buildings. The most common system is Leadership in Energy and Environmental Design (LEED®), developed by the United States Green Building Council (<http://www.usgbc.org>). LEED has developed several rating systems with guidelines for different construction markets, including new nonresidential buildings, core and shell construction of commercial buildings, construction of commercial interiors, the construction of schools, health care facilities, and retail spaces, and a newly-developed system for homes (LEED-H), released in January of 2008. The LEED for the Neighborhood Development Rating System is in the pilot program stage and should be released in 2009.

Under the LEED rating system, the use of specific green building practices or design elements, in addition to certain prerequisite practices, accrue “points” on a checklist. Depending upon the number of points earned, each project is given a rating which corresponds to a level of LEED certification. Projects which meet the minimum number of points are “Certified.” Projects which accrue more than the minimum are rated “Bronze,” “Silver,” “Gold,” or “Platinum,” according to the number of points earned. Most cities require some level LEED-equivalent performance for some types of buildings, but do not require registration with the United States Green Building Council.

Another rating system used by local governments in their green building ordinances is the “GreenPoints Rated” program first developed by a coalition of Alameda County waste agencies (<http://stopwaste.org>) and promoted by Build It Green, a nonprofit organization based in Berkeley, California (<http://www.builditgreen.org>). The GreenPoints Rated system, while similar in approach to LEED, is focused on residential development, including separate guidelines for single-family and multifamily buildings. A building must attain at least 50 “GreenPoints” to be certified as “GreenPoint Rated.”

Several cities or counties have developed their own “points” systems using guidelines and

checklists based on the GreenPoint Rated system. These include guidelines developed by the Sonoma County Waste Management Agency (<http://www.recyclenow.org>) and the City of West Hollywood (<http://www.weho.org/greenbuilding/>). These alternative systems award points for many of the same practices, such as the use of fly ash in concrete, the recycling of construction debris, and the installation of overhangs.

While the far majority of local ordinances require or permit the use of LEED ratings for public and commercial projects, most local ordinances rely on GreenPoints or related systems for residential construction. In 2007, Build it Green signed a Memorandum of Understanding with Davis Energy Group ([www.davisenergy.com](http://www.davisenergy.com)) to calibrate the LEED for Homes and GreenPoints Rated systems for use in California, allowing for cross-training of building professionals, concurrent verification, and the possibility of “dual-branded” homes meeting the requirements of both systems.

As an alternative to the approach of LEED and GreenPoints Rated, the California Building Industry Association’s Building Industry Institute has developed the California Green Builder program (<http://cagreenbuilder.org>) to help builders and communities introduce and verify green building practices. The California Green Builder program combines prescriptive green building measures with a performance-based verification system. Unlike LEED and GreenPoints Rated, the California Green Builder protocols do not use “points,” but require specific practices and third party verification of a building’s actual performance. The California Green Builder program ensures that buildings exceed state energy efficiency requirements by at least 15%, while verifying practices such as duct sealing and construction waste management. As of yet, no California city has required developers to use the Green Builder Program. However, cities such as San Bernardino, Riverside, and Cathedral City have passed ordinances that provide incentives for developers who use the system.

Examples of cities’ minimum LEED, GreenPoint Rated, or other point requirements for private development:

<b>City</b>	<b>Nonresidential Buildings</b>	<b>Residential Buildings</b>
Albany	LEED Gold if over 5000 ft. <sup>2</sup>	50 GreenPoints for single-family
Berkeley	Energy audit required if construction totals more than \$50,000	Energy audit required if construction totals more than \$50,000
Brisbane	LEED Silver if over 10,000 ft. <sup>2</sup>	50 GreenPoints for multifamily
Calabasas	LEED Certified if over 500 ft. <sup>2</sup> ; LEED Silver if over 5000 ft. <sup>2</sup>	
Cotati	60 GreenPoints	60 GreenPoints
Chula Vista		50 GreenPoints
Livermore	LEED Certified Equivalent	50 GreenPoints
Long Beach	LEED Certified if over 50 units	LEED Certified if over 50,000 ft. <sup>2</sup>
Los Altos		50 GreenPoints
Los Angeles	LEED Certified if over 50,000 ft. <sup>2</sup>	LEED Certified if over 50,000 ft. <sup>2</sup> and at least 50 units.

Novato		50 GreenPoints
Palo Alto	LEED Silver if over 5,000 ft. <sup>2</sup>	70 GreenPoints if over 1250 ft. <sup>2</sup>
Pasadena	LEED Certified if over 25,000 ft. <sup>2</sup> ; LEED Silver if over 50,000 ft. <sup>2</sup>	LEED Certified if over four stories
Pleasanton	LEED Certified if over 20,000 ft. <sup>2</sup>	
Rohnert Park	LEED Silver	90 GreenPoints
San Francisco	LEED Gold	75 GreenPoints or LEED Silver
San Rafael	LEED Certified; LEED Silver if over 30,000 ft. <sup>2</sup>	60 GreenPoints
San Mateo (Co.)	LEED Silver if over 3,000 ft. <sup>2</sup>	50 GreenPoints or LEED Certified
Santa Cruz		10 GreenPoints + 1.5 GreenPoints for every 100 ft. <sup>2</sup> over 350 ft. <sup>2</sup>
San Francisco	LEED Gold (by 2012)	75 GreenPoints or LEED Silver (by 2012)
Santa Monica	7 LEED Points (all LEED prerequisites)	
Sebastopol	60 Sonoma County Points	60 Sonoma County Points
Hayward	LEED Silver if valued over \$3,000,000	50 GreenPoints if more than 20 units
Windsor	20 LEED Points	50 GreenPoints
West Hollywood	60 City Points Or LEED Certified	60 City Points or LEED Certified

***Prescriptive Measures***

Rating systems offer flexibility for developers, since the developer can choose which green building practices will be used to meet the requirements. However, some cities have chosen to prescribe specific green building measures in lieu of or in addition to required ratings. These requirements address the particular resource needs of a community, and include measures such as the installation of water-saving plumbing fixtures, solar panels, or the use of energy-saving EnergyStar appliances.

Some cities that require specific prescriptive measures with examples:

<b>City</b>	<b>Required Measures</b>
Cotati	Pre-plumb for solar water heating; 30% fly ash in concrete; 50% native plants in landscaping; protection for 80% drought conditions.

Chula Vista	Pre-plumb for solar water heating
Culver City	1kw of installed solar panels
Palm Desert	Fluorescent, automatic-OFF landscape and utility lighting; NEMA premium electric motors and pumps; conduit for solar
Pasadena	Meet LEED credit 3.1 (water efficiency)
Rohnert Park	Variable speed pool pumps; EnergyStar exhaust fans
Santa Barbara	Variable speed pool pumps; EnergyStar appliances; NEMA premium HVAC motors
Santa Monica	Efficient water heating; EnergyStar appliances; light sensors/dimmers
Sebastopol	Dual flush toilets; low-flow showerheads
West Hollywood	Roof capacity for solar panels; bike parking; many others.

### ***Performance Standards***

Performance standards provide a way to measure the energy efficiency of a building. Tools and guidelines for assessing the performance of buildings have been developed to implement California's energy efficient building standards, and are available from the California Energy Commission (<http://www.energy.ca.gov/title24/>). Both the California Green Builder program and GreenPoints Rated systems require qualifying buildings to exceed Title 24 requirements by at least 15%, and buildings using the LEED system are awarded points for exceeding Title 24 requirements by more than 15%.

As an alternative to ratings systems such as LEED, GreenPoint Rated, or California Green Builder, which grant certification for specific actions designed to conserve resources, many local governments have chosen to directly implement performance standards as alternate means of compliance or as separate requirements from green building practices. Under California Public Resources Code § 25402.2(h), such requirements, when they relate to energy efficiency, must be approved by the California Energy Commission and must be more stringent than the requirements found in Title 24, Part 6 of the California Code of Regulations. Nearly ten cities have received approval from the Energy Commission to incorporate energy efficiency performance standards into their green building ordinances separate from incorporation of GreenPoints Rated or LEED. An updated list is available [here](#).

Cities that have adopted performance-based requirements exceeding Title 24:

<b>City</b>	<b>Energy Efficiency Requirement (increase over Title 24)</b>
Cotati	15%
Los Altos	15% for non-residential buildings
Los Altos Hills	15% for residential buildings

Palm Desert	10% for residential buildings; 15% if over 4,000 ft. <sup>2</sup>
Rohnert Park	10-15% for residential buildings based on size
San Rafael	All homes above 3,500 ft. <sup>2</sup> must equal Title 24 energy use of a 3,500 ft. <sup>2</sup> home
Santa Barbara	20% for residential buildings
Santa Monica	10% exempts projects from prescriptive requirements
Santa Rosa	15% for residential buildings

### ***Municipal Buildings***

Many ordinances in California require that municipal buildings and other city-sponsored projects promote green building practices. These are often the first and most stringent green building requirements passed by a city.

Examples of cities which have higher green building requirements for public buildings than for private projects:

<b>City</b>	<b>Requirement for Municipal Buildings</b>
Albany	LEED Gold if over 5,000 ft. <sup>2</sup>
Berkeley	LEED Silver
Brisbane	LEED Silver if over 5,000 ft. <sup>2</sup>
Livermore	LEED Silver
Los Altos	LEED Certified if over 7,500 ft. <sup>2</sup>
Los Angeles	LEED Certified if over 7,500 ft. <sup>2</sup>
Pasadena	5000 ft. <sup>2</sup> ; LEED Silver
Rohnert Park	LEED Silver
San Rafael	LEED Certified; LEED Silver if over 30,000 ft. <sup>2</sup>
West Hollywood	LEED Certified
Livermore	LEED Certified

### ***Enforcement***

Cities have chosen many different mechanisms for enforcing green building requirements. Most cities require submission of completed checklists based on building plans at the permitting stage. In most cities, buildings permits are contingent upon a complete and sufficient checklist. Many cities, such as Rohnert Park, Santa Monica, and Palo Alto provide for green building verification prior to issuing an occupancy permit. The power to restrict permits for non-compliant buildings

is an important part of ensuring compliance by private developers. San Mateo County requires builders to post a bond of \$1.50 per square foot to ensure compliance with green building requirements.

In addition to enforcement through the permitting process, some local ordinances provide for penalties for violation of a green building ordinance. Ordinances can provide for infractions or injunctions for violators, or even civil penalties. Criminal and civil sanctions are an important way of insuring that green building practices are followed even after the permitting process is complete.

Cities and their methods of green building enforcement:

<b>City</b>	<b>Enforcement</b>
Berkeley	Plan check at permit stage
Brisbane	Verification prior to occupancy permit
Cotati	Plan check and project inspection
Culver City	3rd party inspection
Livermore	Verification plan submitted at permit stage; inspection prior to occupancy permit; infraction or injunction for violation; violation is also public nuisance
Long Beach	3 <sup>rd</sup> party inspection prior to occupancy permit
Los Altos	Verification prior to final inspection
Los Angeles	Plan check or LEED registration at permit stage
Novato	Plan check at permit stage
Palo Alto	Plan check and verification prior to final inspection
Rohnert Park	Plan check and verification prior to final inspection; infraction and civil penalty for violation
Pasadena	Verification at final inspection; additional inspections as needed
San Mateo (Co.)	Plan check at permit stage; bond required until 3 <sup>rd</sup> party verification
Santa Cruz	Plan check at permit stage
Santa Monica	Plan check at permit stage and final inspection
Santa Rosa	Plan check at permit stage and final inspection
Windsor	Verification plan developed at permit stage

West Hollywood	Plan check at land use and permitting stages
Livermore	Verification at permit stage

***Incentives***

Many ordinances that codify mandatory green building requirements also provide incentives that encourage developers to meet or exceed the required standard. These incentives can take the form of rebates or reimbursements, or preferential treatment as expedited permit review, expedited inspections, or even permit variances such as increased floor-area-ratio (FAR) or unit density.

Examples of cities that provide incentives for green performance in addition to mandatory standards:

<b>City</b>	<b>Incentives</b>
Anaheim	Expedited permit processing and fee waivers
Costa Mesa	Expedited permit processing and fee waivers
Chula Vista	50 GreenPoints meets indoor air plan requirements; expedited permit processing
Los Angeles	Expedited permit processing for LEED Silver
Petaluma	Buildings attaining 50 GreenPoints get certificate, plaque, city recognition
San Francisco	Priority permitting for LEED Gold; FAR/height waivers for higher performance
San Rafael	Expedited permit, fee waiver, sign, plaque for 100 GreenPoints or LEED Gold
San Mateo (Co.)	Priority permitting for 75 GreenPoints or LEED Certified
Santa Monica	Permit processing for 35 GreenPoints or 33 LEED points
Marin (Co.)	Rebates for installation of home solar panels

***Comprehensive Ordinances***

As this document illustrates, there are a variety of approaches, methods, and measures to ensure that a city’s development occurs in the most sustainable way possible. Required ratings, prescriptive measures, performance standards, powerful enforcement, and a variety of incentives can all work together to promote the effective and efficient shift to environmentally sensitive building. The most comprehensive programs combine all of these elements to establish minimum standards while encouraging innovation and voluntary commitment to green practices. Cities and counties of all sizes can take ambitious action to combat climate change. Two such comprehensive programs are compared below:

	<b>San Francisco (proposed)</b>	<b>Rohnert Park</b>
Approximate population (U.S. census estimate)	764,000 in 2007	41,083 in 2006
Residential requirement	75 GreenPoints (by 2012)	90 GreenPoints
Nonresidential requirement	LEED Gold (by 2012)	LEED Silver
Examples of prescriptive requirements	On-site space designated for compostable waste, in addition to recycling (by 2012)	Variable speed pool pumps; Energy Star exhaust fans; mastic applied to duct joints
Incentives	For “significantly” exceeding requirements: -Additional building height or FAR -Priority permitting -Equalization of green assessment evaluations, avoiding increased taxes for green features -Rebate or refunds of project fees	None
Enforcement	Plan check and verification prior to final inspection	Plan check and verification prior to final inspection; infraction and civil penalty for violation

Several organizations offer information to local governments interested in developing green building initiatives. Model ordinances and resolutions covering city buildings and encouraging green building in the private sector are available at <http://www.stopwaste.org>. These resolutions are common first steps to developing mandatory green building requirements. Global Green USA (<http://www.globalgreen.org>) offers several publications and resources for local governments, including *Developing Green Building Programs: A Step-by-Step Guide for Local Governments*.