

Welcome to the Build It Green Local Government Site (10-10-08)

This site has been developed to assist California local governments with promoting green building in their communities. It draws on the experience of green building programs across the nation, distills the knowledge and experience of Build It Green, and focuses on the strategies that work for the public sector.

Local governments can look to Build It Green for the following:

- Authoritative advice on green building
- Assistance with developing a green building program in their communities including green building language for general plans, specific plans, affordable housing, ordinances, conditions of approval, and public education
- Connection to a network of other jurisdictions that are in different stages of the green building process
- Connection to a network of green builders and suppliers
- Support for green building

This site is divided into several sections to address specific questions and issues.

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PART 1 OVERVIEW OF GREEN BUILDING

The antecedents to green building can be traced back decades to progressive communities that instituted recycling programs, energy and water conservation, and drought resistant native landscaping. The environmental movement of the '60s raised awareness of habitat and pollution. The California Environmental Quality Act in the '70s required environmental data gathering and analysis prior to approval of development projects. Wind and solar energy projects began to be developed on a large scale in the '90s. In 2004 Governor Schwarzenegger signed an executive order that established the State of California's priority for energy and resource-efficient high performance state buildings. In 2006 the Governor signed the Global Warming Solutions Act of 2006, which requires that by 2020 the state's greenhouse gas emissions need to be reduced to 1990 levels. Local jurisdictions will be required to report and verify GHG emission levels and begin reducing them by 2012. New legislation and other efforts such as those proposed by the Attorney General may move up implementation through CEQA and new legislation may be passed. The following lists typical stakeholders and how they benefit from green building.

Government

- Increase economic development and community vitality
- Improve the jurisdiction's reputation
- Add value to the local built environment
- Increase citizen satisfaction and retention
- Enhance public health and safety
- Improve environmental compliance
- Promote interdepartmental cooperation
- Develop positive relationships with the building industry
- Comply with state requirements

Construction Industry

- Gain competitive marketing edge
- Provide higher quality, higher value product
- Build positive relationships with government
- Reduce legal exposure
- Improve image
- Reduce callbacks
- Increase customer satisfaction

Building Owners

- Lower operating costs
- Provide higher quality, higher value product
- Reduce legal exposure
- Increase property value
- Improve resale potential

Home Owners

- Lower operating costs

- Provide healthy, productive indoor environment
- Increase property value
- Increase resale potential
- Increase pride of ownership

Building Occupants

- Lower operating costs
- Live in a healthier indoor environment
- Enjoy a higher quality of life
- Be a steward of the environment

Affordable Housing Agencies and Nonprofits

- Provide housing that is truly affordable
- Create sustainable communities
- Support environmental equity
- Reduce impacts

Utility

- Reduce peak electrical loads
- Reduce emissions
- Get recognition as environmental stewards
- Meet utility restructuring requirements
- Reduce resource consumption
- Reduce stormwater runoff
- Enhance water quality
- Lower energy use for water pumping/processing

Those organizations that have been addressing energy and other resource issues over the years are offering their experience and expertise to agencies ready to move forward. It is part of Build It Green's mission to assist local governments in the promotion of green building.

SECTION 1 INTRODUCTION TO GREEN BUILDING

Green building is the practice of increasing the efficiency of buildings in the use of energy, water and materials which reduce impacts on human health and the environment, through better siting, design, construction, operation, maintenance and removal. Green building also seeks to enhance livable communities through the design of neighborhoods encouraging mixed use, infill, transit, bikeways, clustering, open space, and habitat preservation. There are many ways to approach the challenge of green building.

Build It Green's approach to green building has evolved over several years through collaboration with governments, utilities, builders, architects, product manufactures and retailers, green professionals, and environmental organizations. Councils and guilds have been formed to provide new information and a sounding board for ideas and proposals. Build It Green's guidelines and GreenPoint Rated program have been developed through collaboration and innovation.

The success of Build It Green is due in part to its multifaceted approach encompassing identification of green products and materials, green construction professionals, green developers, consumer education, and government policy development.

In practical terms, Build It Green offers a whole-systems approach to building that includes these concepts:

- Designing for livable communities
- Using sun and site to the building's advantage for natural heating, cooling, and daylighting
- Landscaping with native, drought-resistant plants and water-efficient practices
- Building quality, durable structures
- Reducing and recycling construction and demolition waste
- Insulating well and ventilating appropriately
- Incorporating durable, salvaged recycled, and sustainably harvested materials
- Using healthy products and building practices
- Using energy efficient and water saving appliances, fixtures and technologies

When implemented holistically, these strategies serve to preserve our environment for future generations by conserving natural resources and protecting air and water quality. They provide benefits for us today by increasing comfort and well-being and helping to maintain healthy air quality. Finally, green building strategies are good for everyone's pocketbook, minimizing maintenance and replacement requirements, reducing utility bills and lowering the cost of home ownership, and increasing property and resale values.

Green buildings are sited, designed, constructed, and operated to enhance the well-being of their occupants and support a healthy community and natural environment.

Build It Green Efforts for Local Government

Build It Green provides strategic assistance to local governments for developing, promoting, and implementing their green building policies and programs.

As awareness increases among state and local government agencies about the economic, health, environmental, and social benefits of green building, a corresponding need arises for effective green building policies that state and local agencies can embrace and promote to their constituents. Build It Green works at the state and local level to establish credible, effective policies and programs that will provide the foundation for green building to become standard practice.

The programs Build It Green promotes are:

- **Complementary and Consistent.** Build It Green guidelines, policies and programs are crafted to be consistent and complementary with California energy and water utility programs, building and energy codes, greenhouse gas legislation, and reputable national green building programs such as ENERGY STAR and LEED
- **Evolving.** Build It Green adapts to changes in requirements, technology, and innovation.
- **Comprehensive.** Build It Green promotes policies that provide credible minimum thresholds for all categories of green building, including energy, water, indoor air quality/health and natural resources.
- **Inclusive and Transparent.** Build It Green develops guidelines and policies in a nonadversarial, open process with all interested stakeholders included.
- **Flexible.** The policies Build It Green recommends are flexible enough to be adapted to regional needs and contexts without weakening their integrity.

Build It Green has developed an Implementation Toolkit to help local governments adopt green building policies. Build It Green staff works with local government staff and officials to help them take advantage of all the resources in the Toolkit found in Appendix A.

- Public Agency Implementation Toolkit (Model Policies, Staff Reports, Presentations for staff to use)
- Training for local government officials, policy makers, and staff
- Communicating with the state and other agencies on issues and trends affecting green building
- Benchmarking and tracking local government policies, programs, and incentives to tap into emerging best practices and avoid reinventing the wheel
- Policy workshops with Boards, Commissions, City Councils and agency staff
- Green Product Directory (online supplier/service provider directories)
- Establishing and supporting Public Agency Councils (PAC) in priority regions around the state

Levels of Local Government Involvement with Build It Green

The following represent the levels of involvement with Build It Green:

1. Public Information. Jurisdiction receives information from Build It Green and makes it available to the public at the counter
2. Membership. This provides recognition of support for Build It Green and access to a broad range of information and discounts.
3. Use Voluntary Guidelines or Checklist. Jurisdiction supports the use of the checklist to promote green building awareness and education.

4. Adopt Guidelines. Jurisdiction adopts Build It Green guidelines to establish a credible and consistent definition of residential green building in the community.
5. Adopt Checklist. Jurisdiction adopts GreenPoint Rated checklist to be reviewed for each application.
6. Third Party rating programs. The most effective way to foster green building is to encourage the private sector to participate in third-party rating programs, which set quantifiable standards for what green means. A rating program helps builders benchmark their internal progress as they expand their green building expertise.
7. GreenPoint Rated. Jurisdiction requires third party rating within the Build It Green, GreenPoint Rated program. Programs may be voluntary or mandatory depending on the location in the California, and the intent of the local jurisdiction. With the support of the Home Builders Association of Northern California, the Bay Area is moving toward mandatory programs.
8. Tracking green building activity and resource savings. GreenPoint Rating and third party verification enables cities to track local green building activity, and gives building owners and tenant's assurance that they're actually getting healthier, more environmentally responsible buildings. Climate/Resource Calculator has been developed to track resource savings from Green Point Rated residences and quantify them on a community basis to respond to green house gas reductions.

GreenPoint Rating

This is a program that uses a checklist with a broad range of categories that address planning and design, site activity, structure features, system selection, finishes and furnishings, and other actions. The program is a point-based system. Points are assigned to green features found in a new home, multifamily structure or and existing home. The intent of the effort is to establish a highly visible program and label to distinguish green homes from conventional homes and to foster positive interactions between GreenPoint Raters and building professionals. Implementation of the program consists of the following actions:

- Establish a checklist of applicable categories and assign points to green features
- Provide training and certification for raters and building professionals
- Maintain a list of approved GreenPoint Raters
- Maintain forms, templates, guidebooks, and other resources necessary for program implementation
- Maintain tracking system that documents program activities and results, including participating projects, raters, builders, contractors, lenders, realtors, and other stakeholders
- Facilitate coordination and information exchange between various stakeholders
- Implement quality assurance procedures to verify quality and consistency of rating results
- Review rater reports and supporting documentation and issue project rating certificates
- Coordinate local consumer education and cooperative advertising with regional campaigns
- Update guidelines and checklists in response to changes in state and federal requirements, innovations in green products and construction methods, and to address feedback from builders, suppliers, consumers, and local government.

GreenPoint Rating for New and Multifamily Homes

Green Point Rated is a comprehensive residential green rating program for new single family and multifamily and remodeling in five categories – Energy Efficiency, Resource Conservation, Indoor Air Quality, Water Conservation and Community Livability. Any eligible project that achieves the minimum of 50 total points and meets category specific thresholds earns the right to bear the GreenPoint Rated label.

GreenPoint Rated Existing Homes

GreenPoint Rated Existing Home is the first comprehensive existing home rating program in the nation. It is designed to provide an accessible entry point to gaining a green rating for the home and also to reward comprehensive improvements.

Build It Green developed the Home Remodeling Green Building Guidelines as a set of best practices for homeowners wishing to pursue a remodel. The GreenPoint Rated Existing Home checklist builds on these guidelines by setting specific thresholds to encourage improvements such as installing efficient appliances, lighting, and plumbing fixtures, improving indoor air quality, and encouraging the use of durable, high-quality materials.

Most home remodels involve sections of the home, not addressing the entire home at one time. Depending on a home's current energy performance and the extent of green home improvements, it will receive either an Elements or Whole House consumer label. An Elements label is provided to homes that meet basic requirements in four environmental categories and are on track to make additional improvements over time. A Whole House label is awarded to homes that meet more extensive requirements and have made comprehensive green improvements.

The requirements for an Elements label include:

- An energy survey to determine possible cost effective energy upgrades
- Visual evaluation of the HVAC system
- Passing an inspection for plumbing leaks
- Passing a back-draft safety test
- Recycling during any remodeling project
- Obtaining 25 minimum points and point thresholds for energy efficiency (8 pts), indoor air quality (2 pts), resource conservation (2 pts) and water conservation (4 pts)

The requirements for the Whole House label include:

- An energy evaluation, including home performance testing
- Passing eleven basic health and safety and systems integrity requirements
- Recycling during any remodeling project
- Obtaining 50 minimum points and point thresholds for energy efficiency (20 pts), indoor air quality (5 pts), resource conservation (6 pts) and water conservation (8 pts)([Link](#))

Green Point Raters

GreenPoint Raters are fully trained to provide the third-party verification services necessary to document the green features and associated environmental benefits of a green building project. Thus local governments are able to implement local policies and incentive mechanisms without further burdening plan checkers and building inspectors to ensure compliance. Rater candidates must demonstrate prior professional experience and successfully complete a rigorous four-day training program. Raters are examined in both plan review and field inspection exercises. Raters must complete continuing education requirements to maintain their certification. Build It Green offers a number of continuing education opportunities and provides an ongoing support mechanism through the Rater Council. Build It Green also conducts periodic quality assurance activities to ensure high-quality and consistent verification results.

Benefits of Green Point Rated to Local Government

This is a program that can be easily administered by Building and Planning Departments when third party raters are used. Staff should attend training to understand terminology and the difference between standard administration of codes and the added layer of green building. Build It Green seeks to be a step ahead of building codes and thus incrementally raise code requirements. A clear example applies to Title 24, Part 6. GreenPoint Rated requires that energy performance be at least 15% more efficient than Title 24. Since Title 24 is updated to higher stringency periodically, a jurisdiction that adopts GreenPoint Rated will remain consistently ahead of California's building code.

GreenPoint Rated seeks to be reliable, practical and flexible. There are few threshold requirements with greater emphasis on choice. There is a growing understanding of the process and the number of raters is increasing. The biggest advantage to local government is the tracking system and climate calculator.

Benefits of Tracking Green Buildings and Using the Climate Calculator.

By adopting and implementing the GreenPoint Rated program, local governments have the opportunity to track residential green development in their community as well as qualify and report out on the associated environmental benefits. Build It Green's comprehensive web-based, tracking system and climate calculator, contains GreenPoint Rated and LEED for Homes projects in California.

A key component of the tracking system will be to track and report environmental benefits attributable to GreenPoint Rated and LEED homes, including avoided greenhouse gas (GHG) emissions, energy efficiency, water conservation, resource conservation, and solid waste reduction. The system will incorporate algorithms for documenting the reduction in GHG emissions from green building measures.

These algorithms incorporate input from ICLEI, California Climate Action Registry, California Air Resources Board, California Energy Commission, and other key stakeholders to ensure consistency with broader climate change policies and initiatives. The Climate Calculator enables quantification of environmental benefits attributable to specific measures incorporated into individual GreenPoint Rated and LEED homes, a level of detail and specificity unavailable through other climate

calculators. Thus the Calculator permits accurate program-level quantification of GreenPoint Rated and LEED Home benefits for the first time. This will become increasingly important as the information necessary to satisfy CEQA and Global Warming Solutions Act of 2006 increase.

Other Certification Programs

In addition to GreenPoint Rated, there are other green building certification programs and standards that are utilized in California.

LEED Certified

LEED Certification requires third party verification and accumulation of sufficient points for the category. Members of the U.S. Green Building Council representing all segments of the building industry developed LEED. LEED provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. LEED standards currently available are:

- LEED for New Construction (for commercial and institutional projects)
- LEED for Existing Buildings
- LEED for Existing Buildings: Operations and Maintenance
- LEED for Commercial Interiors (for the tenant improvement market)
- LEED for Core and Shell (for new core and shell construction)
- LEED for Schools

LEED for Homes is a rating system that promotes the design and construction of high-performance green homes, including affordable housing, mass-production homes, custom designs, stand-alone single-family homes, duplexes and townhouses, suburban low-rise apartments, urban high-rise apartments and condominiums and lofts in historic buildings. LEED for homes is aimed at performance of the top 25% of new homes. LEED certification will also produce GreenPoint Rated certification.

4. California Green Builder

This is a program for a production home builder who builds at least 85 homes a year or builds subdivisions with master plan approval for their building permits. The program is pass fail and does not utilize points. The CGB program coordinator reviews submitted materials for accuracy and verifies compliance with CGB requirements. Upon approval Building Industry Institute (BII) shall designate the project as "CGB Applicant" pending final inspections of the subdivision. After reviewing project documentation, Builder is entitled to use the California Green Builder Logo and to designate the project as a California Green Builder subdivision or community. The Building Industry Institute shall randomly inspect homes to see that CGB Requirements have been met. HERS raters verify compliance.

5. California Building Standards Commission

On Thursday July 17, 2008 the Building Standards Commission adopted a green building code to promote healthy, energy, and resource efficient building practices throughout California. Build It Green applauds the efforts of the Building Standards Commission, the Department of Housing and Community Development, and the Governor for their leadership in developing green building codes.

BSC Relationship to Local Government Green Building Policies

The new California Green Building Standards Code addresses all building types; however, it treats homes and commercial buildings very differently. All of the proposed measures in the new code will be voluntary until 2011, but only residential will have a short list of mandatory requirements at that time. The commercial section consists of a longer list of measures that are voluntary and are not slated to become mandatory. The code is meant to set the minimum floor and does not preempt local governments to go above and beyond as per the Building Standards Commission intent language below.

“101.7 It is the intent of the California Building Standards Commission, by adopting this code, to set minimum Green Building Standards that may, at the discretion of any local government entity, be applied. It is the further intent of the California Building Standards Commission that all entities subject to this code view these standards as minimal Green Building Standards and that local government entities retain their discretion to exceed the standards established by this code.”

“101.3 It is not the intent of the California Building Standards Commission that this code substitute or be identified as meeting the certification requirements of any green building program that is not established and adopted by the California Building Standards Commission.”

Voluntary and Mandatory Sections in the Ca. Green Building Standards Code

A unique aspect of the new code is that most of the stated best design and construction practices are voluntary. Over time some of these voluntary practices will likely become mandatory but that will be several years away. The voluntary practices serve to educate and raise awareness of options available as per the Building Standards Commission intent language below.

“Appendix A: A101.1 Scope. The measures contained in this appendix are not mandatory and provide additional considerations that designers, builders, and property owners may wish to consider during the planning, design and construction process. The standards in this appendix will continue to be developed through the next code adoption cycle for placement in the body of this code.”

“503.2 Minimum energy performance for low-rise residential buildings. Low-rise residential buildings shall meet or exceed the minimum standard design required by the California Energy Code currently in effect.”

“503.1 and A501.1 For the purposes of energy efficiency standards in this code the California Energy Commission will continue to adopt mandatory building standards. It is the intent of this code to encourage green buildings to achieve exemplary performance in the area of energy efficiency. Specifically, a green building should achieve more than a 15% reduction in energy usage when compared to the State’s mandatory energy efficiency standards.”

The code is not a substitute for GreenPoint Rated or LEED for Homes. It offers a low threshold compared to LEED Certified or a 50 point GreenPoint Rated. While the Building Standards Code recommends 15% above Title 24, the code maintains the standard in effect at the time.

Build It Green supports this code and will continue to work with and support local governments in creating credible and accessible green building policies and programs that exceed the new green building code. The state of California has taken an important step and Build It Green looks forward to coordinating and working with the Building Standards Commission, the Department of Housing and Community Development, and the Governor to evolve the code over time and help improve the quality of life for all Californians.

Build It Green will continue to monitor actions taken by the Building Standards Commission, the California Energy Commission, the Air Resources Board, and any other state agencies who may affect green building.

SECTION 2: ROLE OF BUILD IT GREEN

Build It Green is a professional non-profit membership organization that was established in 2003 with the mission to promote healthy, energy-and resource-efficient building in California through outreach and education. With this solid foundation, Build It Green has become the trusted resource for green building advocates and practitioners, statewide. Build It Green offers green building training, tools, and technical expertise to building industry professionals, homeowners, and other stakeholders.

Interact with Government

Build It Green works both on the state and local levels. On the state level Build It Green has participated in the development of legislation, in the development state guidelines and standards, and as a consulting expert on green building. Build It Green will continue to take a leading role in developing state green building guidelines and standards, and to build strategic relationships with key policy makers and opinion leaders and partner with resource management agencies. On the local level Build It Green works with individual jurisdictions to assist them in achieving their green building objectives in planning and construction of residences. The Build It Green objective is to partner with government to establish credible and accessible policies that promote private sector innovation and provide consistent guidelines statewide through adoption of GreenPoint Rated as the standard for local government policies and incentives. As part of this effort Build It Green will be establishing new public agency councils and will work to strengthen existing ones. Build It Green will continue to conduct training for local governments. Build It Green also intends to become a clearinghouse that will benchmark and track local government policies, programs, and incentives. Local government green programs that intend to be comprehensive need to expand expertise and training to the LEED program in order to address commercial, institutional, and industrial buildings.

Build It Green has not been developed as an organization to help individuals comply with local green building programs or interpret local ordinances to individuals.

Interact with the Building Industry

Build It Green works with Builders, Contractors, Architects, Manufacturers, Distributors, Retailers, Realtors, Lenders, and Appraisers to assemble information and train building professionals on the latest best practices, materials, and technologies. Build It Green also seeks to connect green building product suppliers with consumers. Technical resources will be available on the website. As part of this effort Build It Green will provide technical assistance and establish and expand professional Councils, and it will support green building trade shows and professional events.

Build It Green carries on an active dialogue with Building Industry Association Chapters across the state e.g. Home Builders Association of Northern California has formally endorsed GreenPoint Rated and promoted its adoption in the 101 cities and 14 counties in their service area.

Stimulate Demand

Through outreach and education, Build It Green is building awareness of the benefits of green building and has developed GreenPoint Rated to be a trustworthy brand for green homes. As part of this effort Build It Green will connect buyers and sellers of green products, develop database tools to find green products, develop internet-based information resources, and provide marketing and sales training for green professionals.

Create Synergy

The efforts with governments, building professionals and consumers are intended to be mutually supportive and reinforcing. Governments create requirements and provide incentives to utilize green building, which in turn is dependent on green products as demanded by knowledgeable consumers. Appendix B provides the process to update guidelines. The process involves numerous stakeholders and significant deliberation.

Benefits of Membership in Build It Green

- Help support Build It Green programs and initiatives
- Company name and web link on [Our Members](#) page of Build It Green website
- Reduced fees for Build It Green's educational opportunities such as lectures, training and certification courses, and networking events
- Free technical information and access to Ask an Expert hotline where established
- Eligibility to participate in various [Build It Green Councils](#) for continuing education, networking, and collaboration with other professionals
- Permission to use the Build It Green Logo on jurisdiction's promotional materials (subject to guidelines)
- Members link to web site
- Receive newsletter and bulletins
- Acknowledgement in Local Government Spotlight

SECTION 3: KEY ISSUES THAT MAY BE RAISED BEFORE YOUR JURISDICTION

1. Which program approach should be chosen - LEED, Build It Green, California Green Builder, In-house, or State Green Building Codes?

The contrast among green building approaches can be depicted as follows:

Target

Requirements

Benefits to Local Government

LEED

Target: LEED is a third party rating system that has several sets of standards that are directed toward office and commercial uses:

- LEED for New Construction (for commercial and institutional projects)
- LEED for Existing Buildings
- LEED for Existing Buildings: Operations and Maintenance
- LEED for Commercial Interiors (for the tenant improvement market)
- LEED for Core and Shell (for new core and shell construction)
- LEED for Schools

Process Requirements: Applicants must complete LEED submission requirements for a preliminary design phase review, a final design-phase review, a preliminary construction-phase review and a final construction phase review. LEED requires a series of seven prerequisites. Throughout the process credits are earned and produce a score. Scores provide the basis for designation of LEED Certified, Silver, Gold, and Platinum.

Benefits to Local Government: LEED is a nationally recognized green building program that provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. When considering “going green” a jurisdiction often establishes the requirement that civic projects become LEED certified.

LEED for Homes

Target: LEED for Homes is a third party rating system that promotes the design and construction of high-performance green homes, including affordable housing, mass-production homes, custom designs, stand-alone single-family homes, duplexes and townhouses, suburban low-rise apartments, urban high-rise apartments and condominiums and lofts in historic buildings. LEED for homes is aimed at performance of the top 25% of new homes. LEED certification will also produce GreenPoint Rated certification.

Process Requirements: Applicants must complete LEED submission requirements for a preliminary design phase review, a final design-phase review, a preliminary construction-phase review and a final construction phase review. LEED requires seven prerequisites. Throughout the process credits are earned and produce a score. Scores provide the basis for designation of LEED Certified, Silver, Gold, and Platinum.

Benefits to Local Government: LEED is a nationally recognized green building program that provides a complete framework for assessing building performance and meeting sustainability goals. Based on well-founded scientific standards, LEED emphasizes state of the art strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. LEED recognizes achievements and promotes expertise in green building through a comprehensive system offering project certification, professional accreditation, training and practical resources. When considering “going green” a jurisdiction often

Build It Green Guidelines

Target: Build It Green Guidelines provide an entry-level to green building which can range from information for the public counter to an adopted checklist for Single Family New Homes, Single Family Existing Homes, Multifamily New Homes, and Multifamily Existing Homes (under production). The checklist can be used as voluntary information or a required tool to review the project.

Process Requirements: To remain Build It Green Requirements the list should not be revised. A section exists for innovations which includes the opportunity for unique local objectives. The manner in which the Guidelines are applied remains a local prerogative.

Benefits to Local Government: Guidelines are developed through an extensive collaborative process including stakeholders that will be affected by changes in the Guidelines. The Guidelines are supported by Build It Green advice and information. The Guidelines are communicated to State and Federal Agencies to ensure consistency and buy in.

GreenPoint Rated

Target: GreenPoint Rated is a program of Build It Green that relies on a third party rating system for verification and consistency of program application. The programs include:

GreenPoint Rated New Single Family Construction

GreenPoint Rated New Multifamily Construction

GreenPoint Rated Existing Single Family Homes

GreenPoint Rated Existing Multifamily Construction (to be developed in 2009)

It requires an application and review during design, prior to sheeting, and at final inspection. Two prerequisites must be addressed. The program can either be voluntary or mandatory depending on the jurisdictions intentions.

Process Requirements: The process will be different depending on whether the jurisdiction elects to have the process voluntary or mandatory. When it is voluntary the jurisdiction's role is to verify certification to justify whether incentive requirements, if any, have been met. When the process is mandatory the jurisdiction must incorporate it into their existing plan review, plan check, and inspection process. They must also address a series of issues that are described in more detail in Section 4, Step 6 of this document.

Benefits to Local Jurisdiction: The GreenPoint Rated program has been developed through years of effort and testing. It can be found in many locations in the state, which has produced an extensive network of local jurisdictions, builders, and suppliers. It includes a program of training raters and providing oversight. The points are updated and clarified through a collaborative stakeholder process. It has also received endorsement from state agencies, the Association of Bay Area Governments and the Home Builders of Northern California. GreenPoint Rating is an acknowledged brand for green building. A Climate/Resource Calculator and Tracking System has been developed to determine reduction in CO2 and energy use to enable local jurisdictions to track the effectiveness of their efforts.

California Green Builder

Target: California Green Builder offers a non-point, with random inspections for a production home builder who builds at least 85 homes a year or builds subdivisions with master plan approval for their building permits. The building industry remains in charge of the process with the focus on energy and water conservation.

Process Requirements: The program is designed to be voluntary though local governments can adopt it as mandatory. When plans are submitted, the CGB program coordinator reviews submitted materials for accuracy and verifies compliance with CGB requirements. Upon plan approval Building Industry Institute (BII) shall designate the project as "CGB Applicant" pending final inspections of the subdivision. After reviewing project documentation, Builder is entitled to use the California Green Builder Logo and to designate the project as a California Green Builder subdivision or community. CGB certified inspectors shall provide final inspection results to Builder and to BII during build-out to verify project compliance with CGB requirements. BII shall randomly inspect homes to ensure that CGB Requirements have been met.

Benefits to Local Government: It is an established program that reduces energy and water consumption that is generally administered by the building industry and not by local government.

In-house program

Target: Prior to the development of certification programs, progressive jurisdictions developed and adopted their own programs so "green" requirements could be enforced. The target of the program was up to the jurisdiction.

Process Requirements: The process is normally integrated with the jurisdiction's building plan check and inspection. It does not normally receive third party verification though some jurisdictions have created their own point system or modified an existing

system. Most such systems are unique to their jurisdictions so the value of the “point rating” would vary among jurisdictions.

Benefits to Local Jurisdictions: In-house programs may not receive any independent certification or other benefits of certified programs such as calculation of green house gas reduction or energy savings. Since the ‘green building industry’ is rapidly evolving it places additional responsibility on the jurisdiction to keep up with changes brought about by new materials, building methods and government requirements.

California Building Commission Green Building Codes

Target: New green building codes similar to traditional building codes will go into effect January 1, 2011, requiring local adoption prior to that date. In addition to the green building codes an Appendix A was adopted as voluntary best practice suggestions from the Commission. The new California Green Building Standards Code addresses all building types; however, it treats homes and commercial buildings very differently. All of the proposed measures in the new code will be voluntary until 2011, but only residential will have a short list of mandatory requirements at that time. The commercial section consists of a longer list of measures that are voluntary and are not slated to become mandatory. The code is meant to set the minimum floor and does not preempt local governments to go above and beyond.

Process Requirements: The procedures to be followed are the same as for any state code amendment process. The Code is adopted; the model code is prepared and circulated to local jurisdictions. A timeframe is established for comment and clarification provided, and a deadline is established when the State Code will go into effect. Local jurisdictions who wish to avoid conflict between state and local codes adopt local revisions based on the changes adopted by the state.

Benefits to Local Jurisdictions: For jurisdictions that are not interested in developing green building standards, state changes will provide some gradual improvement without local effort. The new green building code is not equivalent or a substitute for GreenPoint Rated or LEED.

Recommendation of Build It Green. For jurisdictions who wish to have a recognized green building program that will comply with state requirements and provide a tracking system for CO₂, energy, and cost savings, adopt the following:

LEED rating for new and existing Commercial, Institutional, and Industrial construction including commercial interiors and core and shell and allow LEED for Homes aimed at performance of the top 25% of new homes. Jurisdiction may wish to make LEED for homes required for homes above a certain threshold in size.

Build It Green, GreenPoint Rated with third party verification for the establishment of a threshold to green building in the community.

2. Should green building verification be self certified, conducted in-house or outsourced to a third party?

Self certification

Some programs permit self-certification particularly at the lower levels of compliance; some jurisdictions allow it at any level. Build It Green does not recognize self certification. Self interested individuals may be motivated to certify particularly when they have designed or built the structure. There may be mistakes in the score or poor interpretations of point qualifications. There is concern that a program such as GreenPoint Rated would cease to be a reliable label if self certification becomes part of the process.

Benefits of in-house

- Staff gains expertise
- Verification is conducted according to jurisdictional standards and direction of the agency

Limitations of in-house

- Inspection staff may not have time to do full verification and thereby lose home certification. Spot checking will not produce a GreenPoint Rated designation or access to the Climate Calculator. Under carefully monitored circumstances a staff member who is certified and dedicated to rating may satisfy Build It Green requirements.
- The process of verification is time intensive and most local jurisdictions with a high volume of building activity do not have the time to conduct a full verification
- Process may be delayed during periods of heavy activity and competing assignments
- In-house staff may be less inclined to keep up with changes
- Training and responsibilities may be outside of job scope

Benefits of out-source

- Process is independent of office workload
- Process is out of payment and accounting of agency
- Standards of verification will be higher
- GreenPoint Rated is an important label that exerts influence for green building in the marketplace

Limitation of out-source

- Contractor may use direct payment as leverage for personal objectives

Recommendation of Build It Green. Out-source verification process to private raters to insure consistent standards and timely third party verification.

3. Should the program seek to attain GreenPoint Rated Label or just require third party certification?

While there is a charge for attaining the GreenPoint Rated label it will enable green building tracking and use of the Climate Calculator as well as a recognized designation important for resale and other transactions.

Recommendation of Build It Green. Take full advantage of the GreenPoint Rated label.

4. Should the program be voluntary or mandatory?

A mandatory program should not be undertaken by a jurisdiction unless the appropriate infrastructure is in place such as appropriate ordinances, training, and accounting. Green building materials must be accessible through an effective supply chain. Staff must be on board and up to speed. There need to be an adequate number of raters available in the area. There must be buy-in from primary stakeholders. Many Bay Area communities can be considered mature in this process and prepared to operate under mandatory requirements; this is one reason the Home Builders Association of Northern California has endorsed mandatory programs.

Voluntary program

- Most jurisdictions began with voluntary programs
- A builder would participate in a voluntary program because it offers builders a green rated designation for the product and possible incentives for the jurisdiction.
- By beginning with a voluntary program the jurisdiction can train staff to integrate green point rating and third party verification into their current application process
- If a jurisdiction is not ready for a voluntary program it can strive for best practices

Mandatory programs

Mandatory programs create a higher level of green building

Agencies considering mandatory approach need to take the following items into account:

- a. Need to conduct a careful review of legal implications with City Attorney or County Counsel. Because cities and counties have the obligation to enforce the California Building Standards Code, there are specific procedures that must be followed when making modifications to the Code at the local level. These specific procedures may include:
 - Amendment of the California Energy Code, filed with the California Energy Commission – this approach is suitable for those provisions of a green program that directly address energy performance standards.

- Amendment of the California Building Code, filed with the California Building Standards Commission – for measures that are “reasonably necessary because of unique local climatic, geologic or topographic conditions”.
 - Requiring green building as part of a Condition of Approval on a project by project basis.
 - Limiting mandatory requirements to those green building practices that do not require changes to the Code.
- b. Need to establish meaningful thresholds and enforcement. A jurisdiction must be willing to commit resources to establish plan check procedures and inspections to verify compliance with the ordinance. Adequate staff training is essential to conduct a mandatory program. Third party verification will ensure consistency and legitimacy of a program.
- c. Need to develop ability to quickly review plans and conduct inspections preventing delay to the overall process. Staff need to be adequately trained, informed and conversant in the program in order to communicate effectively with the building community.
- d. Need to review cost effectiveness of the program.
- e. Community acceptance is essential for a successful program, which includes informing builders, educating the public, and ensuring the availability of adequate local infrastructure (green products suppliers, certified green building professionals, etc.)

Recommendation of Build It Green. Begin with a voluntary program and shift to mandatory when the program is well understood, supported and de-bugged.

5. Should there be a mandatory requirement for GreenPoint Rated Existing Homes?

GreenPoint Rated Existing Home was launched Summer, 2008, and there is a limited but growing pool of trained professionals. There will be a GreenPoint checklist and minimum requirements for these ratings. If the jurisdiction wishes to pursue requirements for remodeling projects at a future time, the threshold for compliance should be set at a level that does not unduly burden homeowners with small projects. A lot of remodeling projects are done by “do it yourselfers” who are not familiar with building issues, so the need for education and flexibility is paramount.

Recommendation of Build It Green. Existing Home/Remodel GreenPoint Rating should be voluntary for the present time.

6. Why does Build It Green support a threshold of 50 points rather than a higher number?

The concept of rating is based on green building above and beyond state building code requirements that apply to all construction. In this way Build It Green raises the bar on construction materials and methods. As has occurred with energy requirements, the state periodically raises code requirements, usually when they have been field tested as voluntary standards. When the code requirements are increased, the GreenPoint Rated standards are modified to sustain the level of rigor in the program since state adopted requirements no longer count as GreenPoint Rated points.

Guidelines and point systems are carefully developed through technical meetings with multiple stakeholders to ensure that elements are beneficial, cost effective, practical, and can be applied consistently throughout the state. Local innovations can be added without disrupting the established guidelines and rating. Adding new requirements at a public hearing is not encouraged because the necessary analysis may not have taken place. Link to Appendix B

Recommendation of Build It Green. Use the latest information and begin at a threshold of 50 points. With experience, some adjustments can be made.

7. What incentives, if any should be provided?

Incentives can help promote competition within the construction market and reward excellence. Incentives can include publicity and promotion of green projects by the city. Some local jurisdictions have established the following:

- Expedited permit processing
- Fee waivers
- Issuance of city recognition through certificates and plaques
- Rebates for energy efficiency, water efficiency, and renewable energy upgrades
- Density bonuses
- Reduced parking requirements

Links to incentive programs in California jurisdictions.

Recommendation of Build It Green. Seek Incentives to improve acceptance of the program.

8. How can program effectiveness be quantified?

In general, counting the number of homes that have qualified for a GreenPoint Rated designation offers some information for an annual report but it will not satisfy State reporting requirements derived from the State mandate connected with AB 32. The State will require the quantification reduction of Green House Gases not units produced. This was a primary incentive for developing the Build It Green tracking system and the Climate Calculator which will quantify units, green house gases reduced, energy reductions, and homeowner savings.

Recommendation of Build It Green. Gain access and use the tracking and Climate Calculator systems.

9. How to develop access to GreenPoint Raters

Two avenues can be used to contact a Certified GreenPoint Rater for your project:

- a. Browse the GreenPoint Rater Directory for a complete listing of Certified Raters, and filter by region to find a Rater in your area.
- b. The other option is to contact [Build It Green](#) with a Request for Rater. Build It Green staff will send an email to all Certified Raters and pass on the contact information of Raters interested in your project. This is a great way to narrow the list of Raters down to those currently accepting projects.

10. How to address different types of projects

Build It Green has developed Current guidelines that include *New Home Construction 2007 Edition*, *Home Remodeling 2007 Edition*, and *Multifamily Green Building Guidelines 2008-2011 Edition*. A Directory of California State local government ordinances and guidelines will be developed to assist jurisdictions in assessing the features of different ordinances.

Part 2: CREATING A GREEN BUILDING PROGRAM

An agency's ability to develop and implement green building initiatives is largely a function of available resources, including staff time and expertise, financial resources and relationships with strategic partners. Smaller jurisdictions in particular may find it challenging to delegate staff time to green building efforts. Fortunately many resources, tools, and programs have been developed.

A jurisdiction should be clear about its objectives in establishing a green building program, since there will be choices regarding the nature and extent of requirements that will go into effect.

SECTION 4: ROADMAP TO DEVELOPING A GREEN BUILDING/BUILD IT GREEN PROGRAM IN YOUR JURISDICTION

The process is organized in Ten Steps

- 1. FORM A GREEN BUILDING TEAM**
- 2. ANALYZE THE MARKET AND IDENTIFY STAKEHOLDERS**
- 3. ASSESS LOCAL POLICIES AND RESOURCES**
- 4. INITIATE TRAINING**
- 5. DEVELOP PARTNERSHIPS**
- 6. DEFINE PROGRAM ELEMENTS**
- 7. DEVELOP A COMMUNITY EDUCATION PROGRAM**
- 8. GENERATE PRESS AND PUBLICITY**
- 9. ADOPT REQUIREMENTS**
- 10. GEAR UP FOR APPLICANTS**

STEP 1. FORM A GREEN BUILDING TEAM

Depending on the size of the jurisdiction, you will likely have one point person or a small core group who will begin formulating the green building program and coordinating activities within the jurisdiction. Invite staff members who work in key building-related functions to join the green team; this will help streamline communication and pave the way for internal support for your green building initiatives. Potential members of the core green team may include staff from departments such as planning, building, architect, public works, facilities, fleet, public health, affordable housing, and attorney. Some members of the team may be active, while others may wish just to be kept informed.

Usually the green team consists solely of local government staff, although in a few jurisdictions where community interest in green building is widespread, the green team also includes a volunteer task force of local building professionals and representatives of community groups. The responsibilities of the Green Team normally include the following:

- Interest in the topic and commitment to developing a product
- Willingness to learn about the methods and approaches to green building
- Examination of opportunities within the jurisdiction
- Development of goals, policies and objectives
- Presentation of draft proposals to appropriate bodies

STEP 2. ANALYZE THE MARKET AND IDENTIFY STAKEHOLDERS

Identify what is in your approval pipeline currently and what can be expected in the future, to determine the types of projects the team will address. Is it mostly residential remodeling with a smattering of commercial construction? Or are you primarily seeing mass-produced single-family homes in new developments, with very little commercial construction? Is multifamily housing a significant factor, and if so, how much of it is affordable versus market-rate? Is non-residential commercial construction mostly limited

to renovations of existing buildings, or are new corporate campuses or industrial facilities on undeveloped land? Are major civic building projects on the horizon?

This analysis is crucial because the building industry is a multifaceted system with many stakeholders. If your green building program is to be effective, it must be tailored to the specific motivations and needs of the construction sectors that predominate in your community.

The green building market will affect the type of stakeholders in the community. As you're putting together your list of potential stakeholders, consider these questions:

- What is the level of organizational or implementation ability
- What level of support might you expect from other government agencies, the construction industry, the business community, area utilities and environmental groups?
- How knowledgeable and accepting of green building are your city's residents?

The better your fledgling program addresses the needs of the key stakeholder groups, the more rapidly it will be accepted. One of your goals should be to provide a framework that enables each stakeholder group to bring their expertise and skills to the table for successful collaboration.

Consider these groups when identifying stakeholders: local home builders, architects, developers, general contractors and remodelers, realtors, landscapers, lumber yards and building-supply retailers, commercial building owners and managers, homeowners and renters and utility representatives.

Other potential stakeholders include organizations and foundations representing issues such as environmental protection, community interests, economic development, low-income housing and community health. Civic and business groups such as the local Chamber of Commerce, Rotary and other service clubs are also potentially important allies. Figure 1 lists primary stakeholders their interest in green building.

Figure 1 Why key stakeholders care about green building

Stakeholder	Values
Government	<ul style="list-style-type: none"> ▪ Increase economic development and community vitality ▪ Improve the jurisdiction's reputation ▪ Add value to the local built environment ▪ Increase citizen satisfaction and retention ▪ Provide public and professional education ▪ Enhance public health and safety ▪ Improve environmental compliance ▪ Promote interdepartmental cooperation ▪ Develop positive relationships with building industry ▪ Comply with State requirements
Construction Industry	<ul style="list-style-type: none"> ▪ Gain competitive marketing edge ▪ Embrace unique educational opportunities ▪ Provide higher quality, higher value product ▪ Build positive relationships with government ▪ Reduce legal exposure ▪ Improve image
Building Owners	<ul style="list-style-type: none"> ▪ Lower operating costs ▪ Attain green seal of approval ▪ Provide higher quality, higher value product ▪ Reduce legal exposure ▪ Increase property value ▪ Improve resale potential
Home Owners	<ul style="list-style-type: none"> ▪ Lower operating costs ▪ Provide healthy, productive indoor environment ▪ Increase property value ▪ Increase resale potential ▪ Increase pride of ownership
Building Occupants	<ul style="list-style-type: none"> ▪ Lower operating costs ▪ Live in a healthier indoor environment ▪ Enjoy a higher quality of life ▪ Be a steward of the environment
Affordable Housing Agencies & Nonprofits	<ul style="list-style-type: none"> ▪ Provide housing that is truly affordable ▪ Create sustainable communities ▪ Support environmental equity ▪ Reduce impacts
Utility	<ul style="list-style-type: none"> ▪ Reduce peak electrical loads ▪ Reduce emissions ▪ Get recognition as environmental stewards ▪ Meet utility restructuring requirements ▪ Reduce resource consumption ▪ Reduce stormwater runoff ▪ Enhance water quality ▪ Lower energy use for water processing/pumping

STEP 3. ASSESS LOCAL POLICIES AND RESOURCES

Review the general plan, community plans, and specific plans for policies related to green building, sustainability, resource management, and similar categories to identify policies adopted in the past. Review CEQA mitigation measures for projects that have been approved for possible green building requirements.

- From the standpoint of Planning and Building the overriding goal is to create sustainable communities
- Green building is just one component of a sustainable community
- You may wish to conduct a sustainability workshop initially to show how green building is connected to other related issues
- This approach can help to garner support from a variety of interest groups.

Most local jurisdictions have programs that address recycling, waste management, water conservation, demand-side energy management, public health, and so on, either through state and regional requirements or on their own initiative. These programs directly relate to many of the constituent components of green building.

Map the relationship between your jurisdiction's relevant policies and programs and your green building goals. If possible, involve staff members from these programs in your green team outreach. Identify how the existing programs relate to green building, and strategize about how to better coordinate activities so that the green building initiative strengthens and supports, rather than replicates, existing programs.

As interest in green building is increasing, the stakes in implementing a program legally and effectively are also increasing. Over time a growing number of jurisdictional requirements will be tied to green building such as code requirements, environmental mitigation, greenhouse gas monitoring and reduction on regional, state, and federal levels. It is likely that elected officials and citizens will question program effectiveness, ease of application and compliance, whether there is support from the industry, and what should be the next steps for the program. Without a clear grounding in green building, programs will be less successful.

Staff time and budgets are concerns for every local government, and establishing even a basic green building initiative will take some resources. By coordinating with other staff members, you will make more efficient use of staff time and financial resources, and be more likely to gain internal support for the green building initiative.

During this assessment you may identify local policies or procedures that may hinder, may not address, or may not support various elements of your green building initiative. Identify the members of your green team who will take responsibility for addressing these barriers.

Context for a Proposed Program

- Has clear direction been given? If so, by whom?
- Is there a well-defined goal?
- Who is the lead person/department?
- What is the timeline?
- What is the impetus behind the decision for a green building ordinance
- What is the sense of the council's/board's direction

- Is there strong political which is important in gaining support for funding, staffing, and other resources

Staff Participation

- Writing a green building ordinance takes time is there available staffing to do this?
- Is there a “champion” on the staff?
- Will there be enough staffing to implement and run the program?

Funding

- How will the development of the ordinance and implementation plan be paid for?
- How will green building plan check and inspection be paid for?
- If you are going to raise fees be careful that there is a careful accounting of true costs

Use of Outside Resources

- Independent consultants can provide green building inspection and plan check services
- Consultants can act as a shock absorber in response in response to competing day-to-day permit activity
- Use of outside consultants can facilitate buy-in and support public private partnerships

STEP 4. INITIATE TRAINING

Build It Green has evolved over five years testing green building approaches and methods and communicating with governments, builders, and manufactures on what works. Build It Green offers training in four ways:

1. A professional training schedule has been developed that includes an introductory program for individuals knowledgeable about construction.
Certified Green Building Professional Training

Training is being developed that will address the following:

Green Building 101

Green Building for Planning and Building Departments

Understanding the GreenPoint Rated program

2. Build It Green has established Public Affairs Councils in Bay Area, Sacramento Area, Los Angeles Basin, and San Diego Basin. These meetings are held quarterly and cover a wide range of green building topics
3. Build It Green participates in conferences and workshops addressing green building topics
4. Build It Green will meet with communities where resources can be found.

From the perspective of Build It Green the critical elements of a green building program are as follows:

- Introduction to the principles of energy efficiency, resource conservation, indoor air quality, water conservation, and community livability
- Introduction to Green Building Guidelines for New Home and Existing Home Construction
- Introduction to GreenPoint Rated
- Introduction to Green Product and Green Professional Directories
- Introduction to Public Agency Implementation Toolkit (Model Policies, Staff Reports, Presentations for staff to use)
- Identification of efforts and progress of other local governments

Getting Up to Speed

- A. Have the local Green Team review the materials on the Build It Green Local Government Link consisting of this document as well as links to other materials and sites. Use the address at the site to submit questions that can be answered by e-mail. Following this exchange, a conference call can be arranged with Build It Green depending on the nature and content of the questions.
- B. Join Build It Green. Build It Green has an extensive network of professionals and materials that can provide specific technical information. (See link)
- C. Send representatives to Build It Green local government training. Build It Green does not have the resources to come and make policy maker presentations. (See link)
- D. Have interested representatives attend Build It Green Public Agency Council (PAC) which is a collaborative effort of over 200 participating public agencies that meet quarterly in four areas of the state to create consistent green building standards, share information, and support each others' programs and initiatives. (See link)
- E. Become familiar with Green Building Guidelines. Guidelines are intended to establish and maintain consistency in programs, encourage innovation, and to help debunk myths about the costs and benefits of green building, and establish a consistent framework for defining what green building means. Guidelines help homeowners and building professionals identify specific practices that can be included in any size or scope of project. Green Building Guidelines have been developed, *New Home Construction 2007 Edition*, *Home Remodeling 2007 Edition*, and *Multifamily 2008-2011 Edition* for California. For private-sector commercial building construction, the LEED Green Building Rating System Reference Guides can be used as a design resource, although their primary purpose is for achieving LEED certification. The target audience for guidelines includes developers, architects, general contractors, production home builders and building owners. Build It Green aggregates print orders to reduce unit cost.
- F. Become familiar with GreenPoint Rated. This program offers consistency in the administration of a green building program, a valuable designation for the home, and a perspective that incorporates the following:
 - Energy Efficiency

- Resource Conservation
- Indoor Air Quality
- Water Conservation
- Community Livability

STEP 5. DEVELOP PARTNERSHIPS

With limited staff time and funding, a local jurisdiction's resources could be stretched thin if it attempted to create its own green building program from scratch. Fortunately local governments can tap into a wealth of green building expertise, tools and resources so that they don't waste time or money replicating work that's already been done.

To access these existing resources, start by creating a list of potential strategic partners. Keep your list focused on the predominant construction markets in your jurisdiction, whether it's residential remodeling, production homebuilding, civic buildings, commercial construction or other markets.

Your strategic partners may include other agency departments within the jurisdiction as well as peers working in neighboring city, county and waste management agencies. Look for opportunities to jointly sponsor green building activities with neighboring cities.

Don't forget partners who may offer specialized technical expertise or provide connections to building professionals and the community, such as universities, professional trade associations, utilities, nonprofit and community groups.

Leverage the strengths of public, private and nonprofit sector partners

The private, public and nonprofit sectors bring different strengths to the table. Your green building program is likely to be more effective in the long run if you develop it in collaboration with the private and nonprofit sectors rather than imposing it on them. Also, collaboration may mean that your city doesn't have to bear all the costs of developing and implementing the program.

The private sector excels at identifying needs in the market and producing goods and services to meet those needs. It also tends to be innovative, quick to adapt to changing demands, and focused on reducing costs and maximizing profits. Look for ways to develop partnerships with interested business leaders and work together on program strategies that are creative, cost effective and beneficial to all sectors.

You are also likely to find valuable partners within the local nonprofit sector. Identify nonprofit leaders who work on housing, environment, health and other issues of community concern, and collaborate with them to leverage the work they are already doing. Also, many nonprofit groups have good relationships with the media, so work with your nonprofit-sector partners to take advantage of press and publicity opportunities.

STEP 6. DEFINE PROGRAM ELEMENTS

The following is a summary listing of Build It Green recommendations:

- Adopt GreenPoint Rated Guidelines
- Use a third party rating program
- Adopt an ordinance either voluntary or mandatory depending on community circumstances including community support
- Provide incentives such as expedited plan check and inspection
- Promote LEED certification for large public facilities

Determine What the Community Wants

Communities approach green building in a variety of ways depending on interest, community will, staff capacity, or resources. Prior to initiating a program it is important to determine the community's goals, policies and objectives with respect to green building. Jurisdictions can range between providing brochures at the application counter to becoming the "greenest" program in the state. The following are options for involvement in the order of increasing involvement and results.

1. Provide Public Information. The jurisdiction can request information from Build It Green and make it available to the public at the counter. The *New Home Guidelines*, *Home Remodeling Guidelines*, and *Multifamily Guidelines* are the primary information documents.

2. Use a Voluntary Checklist. The jurisdiction can adopt the Build It Green checklist to be reviewed for each application to inform the applicant. Guidelines are a set of *voluntary* measures and practices for sustainable home construction. Guidelines are developed to:

- Provide local governments with a ready-to-use educational tool for city staff, builders and homeowners
- Provide a policy foundation for local governments interested in implementing a green building program
- Offer a range of green practices for builders to choose from, ranging from simple "mainstream" steps to more sophisticated measures
- Encourage regional consistency to increase predictability for builders

The Build It Green Guidelines include the GreenPoint Rating checklist, a tool to assess how green a project is. Guidelines are available for New Home Construction, Multifamily Home Construction, and Existing Home Remodeling. The guidelines will be updated periodically using a broad stakeholder's process.

In addition to Build It Green other green building *programs* have specific implementation requirements that may include third party verification. Examples include: CBIA/BII Green Builder Program, LEED-Homes, Energy Star Homes, Healthy Homes, etc.

When the Checklists are used as a reference guide they are a voluntary reference document only that would not mandate any particular action by private builders, developers, or others, and does not impose any new building standards or requirements. Increasingly, building professionals, homeowners, and businesses are voluntarily seeking to implement green building practices. Having an official city reference guide that sets forth feasible and proven green building measures provides a

useful source of information for such individuals and businesses and it indicates the city's commitment and desire to encourage green building within its jurisdiction.

3. Adopt Guidelines. The jurisdiction can adopt Build It Green guidelines and review projects as part of the plan check review in-house. Guidelines are developed through an extensive process of dialogue and collaboration as detailed in Appendix B.

4. Adopt GreenPoint Rated. The jurisdiction can adopt the GreenPoint Rated program and require third party rating. The program may be voluntary or mandatory depending on the location in California and local interest. With the support of the Home Builders Association of Northern California, the Bay Area is moving toward mandatory programs.

The GreenPoint Rated program is designed to provide flexibility to local governments to adapt the rating system to reflect local policies and priorities. These guidelines outline the parameters for customizing the rating system, while preserving core elements that need to be consistent across jurisdictions.

- a. The GreenPoint rating system, including Guidelines, Checklist, Rating Manual, and related documents and templates, must be the basis for rating and certifying homes.
- b. Use of the program name and logo is restricted to those projects that have been verified by a program-certified GreenPoint rater or qualified Implementation Partner and meet minimum threshold requirements. Self-certification is not acceptable under the program.
- c. The minimum threshold for awarding certification is fixed at 50 points; Partners may establish higher thresholds for determining eligibility for incentives.
- d. Build It Green will be responsible for issuing all home rating certificates bearing the program name and logo.

The GreenPoint rating system provides flexibility to add measures in the form of Community and Innovation credits. Builders may earn up to 20 points in each category (40 points total). Build It Green will maintain a master list of pre-approved Community and Innovation measures on its website. The list will include a

- Measure title;
- Description of measure benefits and implementation steps;
- Limitations to applicability (e.g., measures applicable to particular climates, geological conditions, or building types);
- Assigned overall point value and point assignments by benefit category; and
- Description of the verification protocol raters should follow to award the credit.

Local governments may propose new Community and Innovation measures for inclusion in the master list. Proposed measures should include complete descriptions and proposed point assignments, along with supporting rationales, to facilitate Build It Green's review for potential inclusion in the master list.

For internal purposes, local governments may also wish to develop or reference Community and Innovation measures that are not included in the Master List. However, the Build It Green rating certificate will not reflect compliance with purely local

measures. More generally, Build It Green cannot evaluate or recognize local modifications to the GreenPoint rating system outside of the guidelines presented above. This limitation reflects the need for both simple and consistent consumer education and streamlined program administration. If a local government wishes to change point weightings, add credits or modifications outside of the mechanisms described above, then they should be used for internal purposes only.

If a local government chooses to apply the third party verification process to enforce mandatory requirements, it must include the following disclaimer on any in-house program materials that reference Build It Green, the GreenPoint program, or any GreenPoint tools, templates, or resources:

“Build It Green is a non-profit organization providing the GreenPoint rating program as a public service. Build It Green encourages local governments to leverage program resources to support voluntary, market-based programs and strategies.”

5. Adopt a Third Party rating program. The jurisdiction can adopt a third party rating program. The most effective way to foster green building is to encourage the private sector to participate in third-party rating programs, which set quantifiable standards for what green means. A rating program helps builders benchmark their internal progress as they expand their green building expertise.

6. Take advantage of tracking green building activity and resource savings. GreenPoint Rating and third party verification enables cities to track local green building activity, and gives building owners and tenant’s assurance that they’re actually getting healthier, more environmentally responsible buildings. Climate/Resource Calculator to track resource savings from green building programs.

7. Work to maintain the triple bottom line:

- Environment
- Equity
- Economy

Developing Program Elements

Once you’ve laid the groundwork by establishing a green team, analyzing the local construction markets, evaluating internal and external resources, assessing local goals, policies and objectives, and reaching out to strategic partners, give yourselves a round of applause—you’ve made tremendous progress.

Now it’s time to start defining program priorities and elements. Because your time, budget and staffing resources are limited, you must be strategic about where to target your efforts. Start by referring back to your objectives and market analysis. Make sure you’re clear about what types of construction predominate, who your target audiences are, and what internal and external resources you have access to.

When defining your program elements, remember that a green building program supports your stakeholders’ goals; it is not a diversion from their primary business or values. After all, everyone will benefit from the results of a successful green building

program: healthy, safe, comfortable, durable, energy-efficient, cost-effective buildings for all.

Next, identify potential program elements. While no two green building programs are identical, it makes sense to look to other successful programs to see what has worked for them. Here are some key provisions common to many established green building programs:

- **Selecting Green Building Standards**
 - Consider green building standards that are already in use in your region. If there are differences among them compare to see what is most appropriate for your community.
 - You may use more than one standard such as GreenPoint Rated for Homes and LEED for other developments
 - Inspection/verification requirements of green building standards vary considerably make sure what you choose is compatible with current process

- **Encourage use of third party rating programs.** The most effective way to foster green building is to encourage the private sector to participate in third-party rating programs, which set quantifiable standards for what green means. A rating program helps builders benchmark their internal progress as they expand their green building expertise. It also provides a way for cities to track local green building activity, and gives building owners and tenant's assurance that they're actually getting healthier, more environmentally responsible buildings. Green Point Rated is the first comprehensive residential green rating program for new single family and multifamily and remodeling in five categories – Energy Efficiency, Resource Conservation, Indoor Air Quality, Water Conservation and Community Livability. Any eligible project that achieves the minimum of 50 total points and meets category specific thresholds earns the right to bear the GreenPoint Rated label.

For civic and commercial building construction, the LEED Green Building Rating System has become a widely accepted national standard for evaluating a building's environmental performance.

- **Civic projects**

Use policies and contracts to establish goals for green building and set consistent standards. Tools include general plan language, civic green building ordinances, and resolutions to adopt green building guidelines as an official reference for public projects. Also consider greening the city's RFQs and RFPs for new facilities and services, and including green building specification language and requirements in service and maintenance contracts. Local jurisdictions can begin with a model policy developed by StopWaste.Org or similar model. Minimum elements to be included in a Civic Green Building Ordinance:

- Projects must meet a LEED rating and "be so certified by the US Green Building Council"
- Projects must have a LEED Accredited Professional as a principal member of the design team from the beginning

- Exemptions may be granted only by the City Council or Board of Supervisors

Across the country, many cities and states now require that all new construction and major renovations of civic buildings meet the LEED Green Building Rating System standards. The State of California, for example, has adopted a LEED Silver standard for all new state buildings and ARB is recommending it to be raised to a LEED Gold standard for new state buildings and existing state buildings be retrofitted to a LEED EB Silver standard. The state also promotes the Collaborative for High Performance Schools (CHPS) program for all new school construction.

There's no better way to kick off the transformation of your local building market than to lead by example. Make it a priority to green your next high-profile city project. By doing so, you'll be making a public commitment to the city's green goals and you'll raise the visibility of green building in your community. As an added advantage, you can use the process as a means to promote the benefits of green building and increase the number of green buildings in your community. As contractors gain green building experience on municipal buildings, they carry that knowledge over to other commercial projects.

Consider inclusion of **Public-Private Partnership Projects** (any project built on publicly-owned land, primarily funded by the City, built as a project of a Redevelopment Agency, or built under a Disposition and Development Agreement). Our recommended model civic policy includes optional language for including public-private partnerships in the definition of covered projects. Applying green building requirements to these types of projects does not require filing findings with the State of California or raise any legal concerns. For housing projects, use a minimum GreenPoint Rated score of 50 as a standard of compliance as verified by Build It Green. Require a Certified Green Building Professional as a principal member of the design team from the beginning of the project.

- **Private Projects**

The jurisdiction can immediately begin requiring all project applicants to submit green building checklists:

- New Residential Construction: use GreenPoint Rated (single-family new construction, multifamily new construction and single-family existing home)
- Large Commercial Projects: use LEED scorecard for larger commercial projects
- Small Commercial Projects: use our proposed Checklist

This requirement will serve to educate applicants and lay the groundwork for additional policies and mandatory requirements in the future.

Requirements for green building can already be included in the Conditions of Approval for projects. Some jurisdictions have gone as far as requiring that projects be certified under a 3rd party rating system (i.e. LEED or GreenPoint

Rated). As these are handled on a project-by-project basis, they are also not subject to the legal considerations of a mandatory private sector ordinance.

▪ **Standards of Compliance:**

- New Residential Construction - Based on experience assisting other jurisdictions in implementing green building ordinances, Build It Green does not recommend the use of “Build It Green equivalent”, “LEED equivalent,” self-certifying, or in-house verification for residential projects. This process creates ambiguity and frustration for developers and imposes additional workload on city staff, but does not achieve results sought by policymakers. Build It Green “friendly audits” of these projects showed that none were built to the intended green standard.
- Residential Remodeling Projects - Build It Green supports the staff suggestion of tightening enforcement of current T-24 energy efficiency requirements. This will have immediate benefit to the jurisdiction and establish a sound basis for any other policies. We recommend that the jurisdiction *not* adopt mandatory requirements for remodeling projects at this time. Unlike GreenPoint Rated New Home, which is endorsed by California builders, or LEED, which has become a nationally-recognized commercial standard, green building ratings are new for the remodeling/existing home sector. GreenPoint Rated Existing Home ratings are just being launched Summer, 2008, and there is no pool of trained professionals available yet. There will be a GreenPoint checklist and minimum requirements for these ratings. If the jurisdiction wishes to pursue requirements for remodeling projects at a future time, the threshold for compliance should be set at a level that does not unduly burden homeowners with small projects. A lot of remodeling projects are done by “do it yourselfers” who are not familiar with building issues, so the need for education and flexibility is paramount.
- New Large Commercial Projects - Build It Green recommends LEED certification through USGBC. Based on experience assisting other jurisdictions in implementing green building ordinances, Build It Green does not recommend the use of “LEED equivalent,” self-certifying, or in-house verification for large commercial projects. This process creates ambiguity and frustration for developers and imposes additional workload on city staff, but does not achieve results sought by policymakers.
- New Small Commercial Projects and Tenant Improvement Projects Build It Green recommends the use of our proposed Small Commercial Checklist, perhaps combined with an Energy Ordinance.

▪ **Private Projects - Mandatory Green Building Requirement**

Member agencies considering a mandatory approach need to take account the following items:

1. Careful review of legal implications. Because cities and counties have the obligation to enforce the California Building Standards Code, there are specific procedures that must be followed when making modifications to the Code at the local level. These specific procedures may include:

- Amendment of the California Energy Code, filed with the California Energy Commission – this approach is suitable for those provisions of a green program that directly address energy performance standards. For further information see APPENDIX C: State Review of Local Adopted Energy Standards
 - Amendment of the California Building Code, filed with the California Building Standards Commission – for measures that are “reasonably necessary because of unique local climatic, geologic or topographic conditions”. It should be noted that the commission has no authority to deny or accept local conditions, but a law suit can challenge a local decision in court.
 - Requiring green building as part of a Condition of Approval on a project by project basis.
 - Limiting mandatory requirements to those green building practices that do not require changes to the Code.
2. Meaningful thresholds and enforcement. A jurisdiction must be willing to commit resources to establish plan check procedures and inspections to verify compliance with the ordinance. Third party verification will ensure consistency and legitimacy of a program.
 3. Community acceptance is essential for a successful program, which includes informing builders, educating the public, and ensuring the availability of adequate local infrastructure (green products suppliers, certified green building professionals, etc.)

Incentives

These can help promote competition within the construction market and reward excellence. Incentives can include publicity and promotion of green projects by the city. Some local jurisdictions have established the following:

- Expedited permit processing (builders have expressed this measure to be the most valuable incentive in many cases)
- Fee waivers
- Issuance of city recognition through certificates and plaques
- Rebates for energy efficiency, water efficiency, and renewable energy upgrades
- Density bonuses
- Reduce parking requirements

Writing the Ordinance

- Research what other cities and counties have done
- This also helps promote regional consistency
- Regional consistency contributes to the success of both mandatory and voluntary programs
- Review not only the ordinances but the staff reports as well

Legal Considerations

- Consult often with your legal counsel
- Identify conflicts between the proposed ordinance and state and local laws

- Local modifications of the California Building Standards Code may be necessary
- Modifying the CA Energy Efficiency Standards is allowed, but only as provide for in CA Public Resources Code 25402.(h),(2)

See Implementation, Section 5

STEP 7. DEVELOP A COMMUNITY EDUCATION PROGRAM

Public education has always been the purview of the public sector and is critical to accelerating the market transformation to green building.

Residential green building guidelines: An indispensable tool for education

As part of your program’s education efforts, you’ll likely want to introduce green building guidelines to your target audiences. Well-established guidelines are readily available for cities to use as is or modify to suit their needs, with limits to maintain certification. Guidelines explain what green building is, why it is of value, and how to do it (for architects, builders and developers) or how to get it (for homeowners and tenants).

Current guidelines include *New Home Construction 2007 Edition*, *Home Remodeling 2007 Edition*, and *Multifamily Green Building Guidelines 2008-2011 Edition*.

This series of green building guidelines is targeted toward mainstream builders and homeowners and describes how green building practices can be applied to every residential construction project, not just niche or demonstration homes. These guidelines describe cost-effective, proven green building practices; explain the benefits to consumers, builders and communities; and demystify the materials and methods used to build green homes.

One simple action that your city can take is to adopt a resolution declaring the *New Home Construction Green Building Guidelines* as an official reference guide. This costs the city nothing, but demonstrates to architects, builders and other stakeholders that the city is committed to green building. This policy can take the form of a resolution that references the city’s general plan goals or other policies.

The *Green Building Guidelines* include a Green Points checklist that allows the architect, developer or builder to rate how green a particular project is. Some cities now require that the Green Points checklist be included with each project submitted for a building permit. This simple step has proven to be very effective in getting the community to take notice of green building.

Balance Consideration for Construction Economics

The building industry builds what the market demands. As more people become educated about the benefits of green building, they will demand that the design and construction industry adopt healthier, more environmentally responsible practices. The greater the demand, the faster the industry will find a way to meet the demand.

When considering the types of educational materials to make available, be sure to devote attention to both the supply side (the building industry) and the demand side (building owners, homeowners and tenants):

- **Supply side:** Materials should explain the business benefits of green building, which may include a more streamlined approvals process, competitive market advantages, reduced liability or increased profits. The materials should also help builders and developers increase their green building know-how so they are willing and able to offer greener buildings.
- **Demand side:** The materials should explain the personal, business and community benefits so that owners and tenants will insist on greener buildings. Make sure to focus on the benefits, not the features. A product does not impress someone, but what it delivers does. The demand-side benefits of green building include comfort, health, cost savings, employee satisfaction, and more.

Beyond guidelines

Always make sure that the materials you make available are well matched to the needs of your target audiences.

Community Education

Distributing guidelines is an important first step in educating your constituency about the benefits and methods of building green. But guidelines alone aren't enough to transform the market. Your program's education element should offer a combination of tools rather than a single tool or one-dimensional strategy. Resources to consider offering include printed materials such as program brochures or fact sheets that can be displayed at agency permit counters, mailed to residents, distributed at community events, and made available on your Web site; green building tours; articles placed in local newsletters; booths at community fairs and events; paid and word-of-mouth advertising; and so on.

Established green building programs have found that it's critical to provide continuing education opportunities to building professionals, building owners, and the interested consumers, so each conversation can offer some community education.

Continuing education for building professionals

Continuing education helps increase the supply of and demand for green buildings, and develops local expertise by providing how-to information. Training building industry professionals is an essential component of a successful green building program. Architects need to know how to design high performance buildings. Interior designers need to know how to find healthier finishes and furnishings. Remodelers of residential and commercial buildings need to know how to integrate green features into existing buildings. Builders of new homes need to understand the economics of green building and how to include green features into their plans and developments. Building inspectors need to understand green designs, products and installations and how they relate to the codes.

The city can sponsor educational workshops featuring green building experts. On its own or in conjunction with neighboring cities, the city can host educational events organized by Build It Green. Training opportunities are available for the different building industry sectors, including production homebuilding, remodeling, multifamily housing and commercial buildings. The target audience includes city staff, builders, remodelers and commercial developers. Build It Green trainers or other consultants can deliver the content of these educational sessions, but the city plays a critical role in convening the appropriate stakeholders and lending credibility to the initiative.

If you are targeting the residential construction market, consider hosting the Build It Green Certified Green Building Professional training. Encourage contractors who have pulled permits in your city to attend this training. If you have limited resources, partner with neighboring jurisdictions to offer this training.

Your city can also sponsor LEED workshops in conjunction with local chapters of the U.S. Green Building Council. This will ensure that training is available for contractors and developers of commercial buildings.

Reaching out to homeowners

Homeowner and tenant education is also valuable to help them become better informed consumers. For example, you can organize special workshops and seminars for homeowners who want to lower their utility bills and make their homes healthier and more comfortable.

Keeping municipal staff ahead of the curve

When planning your continuing education programs, don't forget one of your most important audiences: municipal staff and others who make decisions about civic buildings. Internal training is indispensable for building support for your program and for developing expertise so that civic buildings can lead the way toward a greener community.

Build It Green is approaching training in green building in 4 ways:

1. There is a Professional Training Schedule with 5 courses currently offered;
 - a. Certified Green Building Professional Training
 - b. Advanced Certified Green Building Professional Training
 - c. GreenPoint Rater – New Home Training
 - d. GreenPoint Rater – Existing Home Training
 - e. Combined GreenPoint Rater – New Home with Certified Green Building Professional Training

There are 3 additional training programs being developed:

- a. Green Building 101
 - b. Green Building for Planning and Building Departments
 - c. Understanding the Green Point Rating Program
2. Build It Green has established Public Affairs Councils for the Bay Area, Sacramento Area, Los Angeles Basin, San Diego Basin which includes green building presentations and related matter as well as providing a forum for networking with other agencies
 3. Build It Green presents at Conferences and Workshops covering green building topics

4. Build It Green will meet with local governments within limits of its non-profit resources

Some programs pay for department subscriptions to green building publications such as *Environmental Building News*. Kiosks in the building department or other highly visible locations can display product samples and printed resources. It may also be useful to hold regular staff meetings or brownbag sessions to discuss new green building topics or programs.

STEP 8. GENERATE PRESS AND PUBLICITY

Get your messages out to your target audiences and raise your program's visibility by generating press and publicity. Seek opportunities for co-marketing, media coverage and free advertising.

Be creative. Marketing and publicity can take many forms, including:

- Using municipal communication strategies like information pamphlets inserted into water and solid waste bills to educate residents about green building
- Creating an educational display at the permit center
- Organizing an awards ceremony to recognize teams that built exemplary projects
- Placing articles in neighborhood association, civic and business newsletters
- Sponsoring home tours and other green building tours
- Integrating green building messages into public officials' presentations and speeches
- Write up local case studies

To support cities' publicity and marketing efforts, Build It Green is developing sample articles and other marketing materials.

STEP 9. ADOPT REQUIREMENTS

Be sure that local ordinances are followed explicitly in the process of adoption. Local workshops may be useful in less formal discussion of proposals in anticipation of the formal review process.

Local governments throughout California are adopting civic green building ordinances that require green building on new public projects as an initial step. This is generally followed by a voluntary ordinance for private development. Some jurisdictions have adopted mandatory participation ordinances. If a jurisdiction isn't ready for an ordinance, it can adopt a resolution stating that it is local government policy to build green.

Before attempting to pass an ordinance or resolution, it is important to make sure there is solid support from the affected range of local staff, including the attorney, and elected officials for green building. Many jurisdictions hold study sessions for interested staff, advisory bodies, planning commissions, and elected bodies to review examples of green building, discuss community benefits and explore policy implementation strategies. See Section 5, Implementation.

STEP 10. GEAR UP FOR APPLICANTS

Consider the reception of the first applicant for your new green building program. Will there be adequate understanding of the program within the department? If someone other than the program champion is called to assist, will there be sufficient comprehension of the program to offer guidance and appropriate direction?

New programs must be kicked off with significant in-house training, materials, and useful referrals.

SECTION 5: IMPLEMENTATION

Once the ordinance is written, clearly define how the process will work

- Will the permit application process change? Do everything possible not to lengthen the process particularly if developers are complaining about it now.
- How will consultants interface with BD staff?
- What additional forms and paperwork will be required?
- Consider holding an informational meeting prior to the effective date of the ordinance

Emphasis on GreenPoint Rated Implementation

Set Effective Date (Month Day Year) that will cover

- Applications for design review; or
- Applications for building permits

Structure

- Adopt one Ordinance Chapter _ of the _ Municipal or County Code
- Adopt one Resolution _ Green Building Standards or Guidelines
- Adopt one Resolution_ Establishing Compliance Thresholds

Green Building Compliance Official (GBCO)

The City or County's Building Official or designee makes all initial determinations as to whether or not proposed projects will be required to comply with the Ordinance.

Ordinance Effect

The following covered projects must comply with the ordinance and therefore require the oversight of the GBCO

- New Home Construction
- Multifamily Home New Construction
- Existing Home Remodeling is recommended to be voluntary at this time and therefore will not require the oversight of the GBCO, though a third party rater is necessary for certification

Non-covered projects include the following:

1. Any new construction that is subject to the provisions of any development agreement existing on the date this ordinance takes effect.

2. Any design review application deemed complete or any building permit application meeting the standards for building permit acceptance by the Building Division prior to the effective adoption date of this chapter. If any such applications expire prior to issuance of a building permit, those projects will become subject to the requirements of this chapter.
3. Repair or renovation of any structure (regulated by the California Building Standards Code) for the express purpose of performing "Seismic Upgrades".
4. Structural and non-structural work authorized under the same building permit for seismic upgrades that is required as a result of performing seismic upgrades.
5. Any project where a building permit is issued for the sole purpose of performing plumbing, electrical, or mechanical work.
6. Installation of a roof covering on any existing building
7. Any covered project type that has not had a compliance threshold set by City Council or Board Resolution.
8. Repair of any structure (regulated by the California Building Standards Code) that is necessary when the structure has been damaged by fire, flood, wind, earthquake, or accident.
9. Any project specified by the City Council or Board of Supervisors resolution as a non-covered project.
10. Swimming pools (thought they must still comply with the Energy Efficiency Ordinance)

Determine Covered Project “Type” and “Tier” Sample

Covered Project Type	Tier 1	Tier 2	Tier 3
SFD New	>12 dwelling units/acre	7-12 dwelling units/acre	1-6 dwelling units per acre
SFD Addition	> 500 square feet		
MFD New	< 20 dwelling units	20-50 dwelling units	> 50 dwelling units
MFD Remodel	No program available at this time		
Commercial, New	<20,000 square feet	20,000-50,000 square feet	>50,000 square feet
Commercial TI	<20,000 square feet	20,000-50,000 square feet	>50,000 square feet
City/County Sponsored	<10,000 square feet	10,000-20,000 square feet	>20,000 square feet

Determine Applicable Green Building Standards

Covered Project Type	Tier 1	Tier 2	Tier 3
SFD New	<i>Build It Green’s 2007 New Home Construction Green Building Guidelines, Rating System and Checklist</i>		
SFD Addition	<i>Build It Green’s 2007 Home Remodeling Green Building Guidelines, Rating System and Checklist</i>		
MFD New	<i>Build It Green’s Multifamily Green Building Guidelines, Rating System and Checklist</i>		
MFD Remodel	Not Available at this time		
Commercial, New	U.S. Green Building Council’s <i>LEED for New Construction Version 2.2 or LEED Core and Shell Version 2.0 Guidelines Rating System</i>		
Commercial, TI	U.S. Green Building Council’s <i>LEED for New Construction Version 2.2 or LEED for Commercial Interiors Version 2.0 Guidelines, Rating System</i>		
City Sponsored	As per project type indicated above		

Determine Compliance Threshold Sample

Project Type	Tier 1	Tier 2	Tier 3
SFD New	50 Pts GreenPoint Rated	70 Pts GreenPoint Rated	90 Pts GreenPoint Rated
SFD Addition		1 point	
MFD New		80 points	
MFD Remodel	Not Applicable at this time		
Commercial, New	LEED Certified, Self-certifying	LEED Silver, self certifying	LEED Silver, Registered
Commercial, TI	35% of all possible LEED Pts. Self-certifying	45% of all possible LEED points. Self-certifying	55% of all possible LEED points. Self-certifying
City Sponsored	LEED Certified Self-certifying	LEED Silver Self-certifying	LEED Silver Registered

Pre-Permitting Documentation (PPD)

1. Application form provided by the City/County
2. Application must be accompanied by the applicable green building checklist
3. Checklist must be filled out by a Certified Green Point Rater or LEED Accredited Professional, whichever is applicable
4. Additional worksheets may be necessary to provide supporting information for credits taken in innovation categories
5. Applicant must meet with Green Building Compliance Officer (GBCO) to receive approval for PPD
6. PPD must be approved by the GBCO prior to applying for a building permit or design review
7. GBCO may waive review of PPD under certain conditions e.g. when multiple projects of a subdivision are submitted at different times but are similar in nature

Submit Application for Design Review or Building Permit

1. Copy of approved PPD must be printed on the plans submitted for building permit and design review applications
2. Design review approval will be granted or building permit issued, upon successful completion of the design review/plan check process
3. Detailed green building review will take place during the normal plan check process

Copy of Approved PPD will include the following:

1. Copy of approved application
2. Applicable checklist
3. City application
4. Work sheets as specified by PPD approval
5. Specified fees

Permit Issuance

1. Building permit will be issued upon successful completion of the plan review process
2. Applicant must adhere to green building requirements during construction phase
3. Changes in scope of green building measures by the applicant must be brought to the attention of the GBCO for review and approval prior to construction

Final Determination of Compliance

1. Required prior to final inspection of the project
2. Architects, LEED APs, and Green Point Raters must have all specified documentation submitted to the GBCO for approval prior to final green building inspections
3. All other documentation must be reviewed and approved by the GBCO

**Unable to Meet Final Determination of Compliance
Good Faith Effort to Comply**

1. Requires request in writing to the GBCO
2. Demonstrates that cost of providing green building documentation is disproportionate to overall cost of project (2.5%)
3. Certain green building materials or technologies on the checklist are no longer available or not yet commercially available

Non-compliant project

1. No final inspection until resolved
2. Applicant must submit request to Appellate Body for "Hearing of Non-compliant project"
3. Appellate body will determine equivalent alternate measures in order to change status of project so it can receive a final inspections
4. Appellate body's decision may be appealed to the elected by whose decision is final
5. Projects that do not meet the requirements of the City's or County's Green Building Ordinance will not be granted approval for occupancy

Infeasibility Exemption

1. Lack of available consulting support
2. Lack of commercially available materials or technology
3. There is conflict with the requirements of the green building rating system and the CBC
4. There green building standards do not include enough green building measures that are compatible with the scope of work
5. Applicant must apply for Infeasibility Exemption at time of PPD application
6. It applies on a "measure for measure" basis

Inspections Build It Green/GreenPoint Rated

1. Applicants shall contract with the rater directly

2. Applicants should understand that inspections and rating do not involve site design, or similar consulting responsibilities which are billed separate from rating
3. Applicants must supply required documentation
4. Required inspections
 - a. Frame and close in for all measures that provide GreenPoint Rated Checklist points
 - b. Pre-final inspection (prior to normal final inspections)
 - c. Other inspections if specified

Inspection LEED Registered

1. Must follow all certifying and procedural requirements of the USGBC for registered projects
2. Must submit proof of USGBC registration to GBCO within 30 days of permit issuance
3. Applicant must provide GBCO with online access to the LEED Accredited Professional
4. City will make periodic inspections (non-complying projects shall be issued a stop work order)
5. Applicant must submit proof of LEED Certification to GBCO within one year of receiving final inspection

Inspection – LEED Self-certify

1. Applicants are encouraged to register their project with USGBC – LEED registration is not required
2. Project documentation is substantially the same as for LEED Registered projects except that the architect/engineer of record shall be the repository for all LEED documents
3. Architect/engineer of record shall certify the project (using the jurisdiction's form)
4. Inspection of self-certified projects shall be performed by LEED APs acting as consultants for the jurisdiction
5. Inspection protocol shall be as specified for inspection of Build It Green/GreenPoint Rated projects

Recognition

Projects built the standards, as specified in the jurisdictions green building ordinance, will be issued certificates indicating the applicable green building standard used for construction along with the achieved rating and/or point total. Projects that exceed

minimum requirements and exemplify leadership in green building design shall receive special recognition from the jurisdiction.

Fees for Jurisdiction

Fees will be added to building fees. The fees represent the non-code elements of oversight.

Fees to Build It Green

Will be based on current schedule and will be required prior to certification

Fees for GreenPoint Rated

Fees are established between the GreenPoint Rater and the Applicant. Fees may be fixed fee or hourly. The minimum amount of time is estimated at \$800-\$1000 for a custom home. The cost will go up with extensiveness of green building elements or complexity of the structure. Production home costs will drop to \$150 to \$200 due to the opportunity to sample.

APPENDIX A: TOOLKIT TO ASSIST THE JURISDICTION WITH SAMPLE DOCUMENTS

This appendix includes a variety of sample documents that can be adapted for local government adoption. Samples should not be adopted without approval of the city attorney or county counsel since local jurisdictions may vary in the structure of their code and approval process.

Attachment A. MEMBERSHIP APPLICATION TO BUILD IT GREEN FOR PUBLIC AGENCIES



Date: _____

Agency Name: _____

Contact Name: _____

Contact Title: _____

Physical Address: _____

Mailing Address: _____

Telephone: _____ Fax: _____

Email Address: _____ Website: _____

How did you hear about us? _____

Application for: Membership \$100 or Sponsorship (Choose one of the following)

Platinum Sponsor \$30,000

Gold Sponsor \$15,000

Silver Sponsor \$7,500

Bronze Sponsor \$4,500

Return completed form to:

Membership@BuildItGreen.org , fax to 510-845-1854 *or* mail to Build It Green, 1434 University Ave., Berkeley, CA 94702.

ATTACHMENT B. SAMPLE RESOLUTION ADOPTING BUILD IT GREEN GUIDELINES AS REFERENCE STANDARD

CITY OF _____

RESOLUTION #

Resolution Adopting *New Home Construction Green Building Guidelines* as City Reference Document

WHEREAS, the City of _____ 's (City) General Plan sets forth goals for preserving and improving the natural and built environment of the City, protecting the health of its residents and visitors, and fostering its economy; and

WHEREAS, green building is a whole systems approach to the design, construction and operation of buildings that employs materials and methods that promote natural resource conservation, energy efficiency, and good indoor air quality; and

WHEREAS, green buildings benefit building industry professionals, residents, and communities by improving construction quality; increasing building durability; reducing utility, maintenance, water and energy costs; creating healthier homes; and enhancing comfort and livability; and

WHEREAS, Build It Green is a professional non-profit membership organization whose mission is to promote healthy, energy-efficiency, and resource-efficient buildings in California; and

WHEREAS, Build It Green has developed voluntary *New Home Construction Green Building Guidelines* to provide an educational tool to local governments, building professionals, and the general public and present a range of voluntary measures for builders to choose from when constructing green homes in California; and

WHEREAS, the *New Home Construction Green Building Guidelines* benefited from extensive input from local governments, building professionals, State agencies, and recognized green building professionals and the practices contained in these guidelines were selected for their viability in today's market and their ability to promote sustainable buildings and communities; and

WHEREAS, adoption of the New Home Construction Green Building Guidelines promotes regional consistency and predictability for building professionals; and

WHEREAS, the adoption of the *New Home Construction Green Building Guidelines* as a reference document would not constitute a "project" within the meaning of the California Environmental Quality Act ("CEQA");

NOW THEREFORE, BE IT RESOLVED, that the City hereby finds that green building design, construction and operation furthers the goals set forth in the City's General Plan, including **[include these, and others, if applicable: the Land Use Element, Conservation Element, Open Space Element, and Housing**

Element];

NOW THEREFORE, BE IT RESOLVED, that private residential builders and developers should be encouraged to use green building design, construction, and operation whenever feasible; and;

NOW THEREFORE, BE IT FURTHER RESOLVED, that the City Council of the City of _____ adopts the Build It Green *New Home Construction Green Building Guidelines*, as they may be amended from time to time, as a City reference document and directs City staff to explore incentives to encourage use of the Guidelines by private developers of residential construction projects within the City.

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:



Attachment C. Sample New Home Construction Green Building Guidelines Staff Report

MEMO

October 13, 2008

TO: City Council

FROM: [NAME, POSITION]

SUBJECT: *Residential Green Building Guidelines – Reference Document*

BACKGROUND:

Residential construction continues to result in significant impacts on energy consumption, greenhouse gas emissions, waste generation, water use, transportation, and other quality of life factors.

- Construction investment in California for new residential is \$34 billion in 2003, compared to \$14 billion for private commercial.
- In order to meet expected California population growth, approximately 3.3 million homes need to be added by 2020.
- Residential sector uses 31% of electricity consumed in the state.
- A 2,000 square foot home: requires 15,000 board feet lumber and generates 3 to 5 tons waste.
- Residences use 5.6 million acre-feet of applied water annually.
- Americans spend on average 90% of their time indoors. Many common building products used in housing construction emit chemicals known to have adverse health impacts.
- Green building can reduce the environmental and quality of life impacts of new development.

An effective way to reduce these impacts is by incorporating green building measures in projects.

What is Green Building?

Green building is one of the fastest growing trends in the building industry. Interest in green building spans the public, private and nonprofit sectors. Green building promotes a whole-systems approach to the planning, design, construction and operation of buildings. This comprehensive approach benefits communities, residents and businesses by:

- Improving construction quality and increasing building longevity
- Reducing utility, maintenance and infrastructure costs
- Protecting the health of workers and residents
- Enhancing quality of life in our communities
- Supporting manufacturers and suppliers of resource-efficient building products

Green building means taking steps to create buildings that are safe and healthy for people and that protect our environment. For example, proper orientation of homes on a site can significantly reduce the heating and cooling energy that is required year after year. Recycled-content decking, reclaimed lumber and other products put waste to good use, while providing quality and durability that often exceed conventional materials. Advanced framing techniques can substantially reduce lumber requirements without compromising structural integrity. Using low-emitting interior finishes and designing for sufficient ventilation will contribute to better indoor air quality. While specific methods and products may vary from project to project, the basic principles of green building apply to all types of new construction and renovation, from remodeling a kitchen to constructing a courthouse.

Residential Green Building Guideline Development

In recent years, there has been increasing interest among local governments in collaborating to develop greater regional consistency among local green building initiatives. This interest has been facilitated by the emergence of Build It Green, a professional non-profit membership organization dedicated to promoting healthy, energy-efficiency, and resource-efficient buildings in California. Build It Green serves as an umbrella and facilitator for associate councils, guilds, and networks including the Public Agency Council, Green Remodelers Guild, Non-Profit Network, Green Affordable Housing Coalition, Real Estate Council, Suppliers Council, and Builders Council. The Public Agency Council (PAC) is a unique collaborative effort of over 70 participating public agencies that meet quarterly to create consistent green building standards, share information, and support each others' programs and initiatives.

City Staff regularly participates in the Build It Green Public Agency Council, which was instrumental in developing the 2005 edition of the *Build It Green New Home Construction Green Building Guidelines*. These guidelines are based on the Alameda County New Home Construction Green Building Guidelines, which were first developed in 2000 through a collaborative process and public-private partnership among builders, green building experts, and local government staff in Alameda County. Representatives from major production builders, including Centex Homes, Greenbriar Homes, Ponderosa Homes, Pulte Homes, Shea Homes, Signature Properties, Silverwood Homes, and Toll Brothers, provided input and direction in the development of the original Guidelines.

The Guidelines were updated in 2005 to expand their applicability throughout California, address changes in Title 24, and incorporate measures from other residential green building initiatives, such as the California Green Builder program, National Association of Home Builders guidelines, and the pilot draft LEED for Homes checklist.

The Green Residential Environmental Action Team (GREAT), a task force of state agencies including the California Integrated Waste Management Board, California Energy Commission, Office of Environmental Health Hazard Assessment, Office of the State Architect, Department of General Services, Department of Water Resources, and California Air Resources Board, provided technical expertise and input in the update of these Guidelines.

Build It Green expanded and facilitated the stakeholder process to include input from its various councils, including the Public Agency Council, Builders Council, Non-Profit Network, and Suppliers Council.

Publicly available information, scientific data, and third-party standards were referenced in the development of these Guidelines. The Guidelines are intended to be a living document, and will be regularly updated as additional technical and quantitative information becomes available, measurement tools such as Life Cycle Assessment become more accessible, and new green measures are developed.

ATTACHMENT D SAMPLE IMPLEMENTATION RESOLUTION

City of Sustainability Green Building Ordinance Standards of Compliance and Compliance Thresholds

1. Standards of Compliance for Covered Projects: All covered projects shall be constructed using the following green building standards (See also Table 1):

- a) Single-family residential new projects shall be constructed using the Build It Green New Home Construction Green Building Guidelines published March 2007. The green building project checklist shall be the New Home GreenPoint Checklist by Build It Green.
- b) Single-family residential addition projects shall be constructed using the Build It Green Home Remodeling Green Building Guidelines published March 2007. The green building project checklist shall be the GreenPoint Rating System for Remodeling Projects by Build It Green.
- c) Multifamily residential new projects and remodel projects shall be constructed using the Build It Green Multifamily Green Building Guidelines. The green building project checklist shall be the GreenPoint Rating System for Multifamily Projects by Build It Green.
- d) Commercial projects new shall be constructed using the U.S. Green Building Council LEED-NC (New Construction) Version 2.2 rating system, or the U.S. Green Building Council LEED-CS (Core and Shell) Version 2.0 rating system, whichever one the U.S. Green Building Council determines is the most appropriate. In the absence of a determination by the U.S. Green Building Council for specifying the applicable green rating system, the determination shall be made by the green building compliance official. The green building project checklist shall be the corresponding Registered Project Checklist published by the U.S. Green Building Council as required for the respective rating system used for the covered project.
- e) Commercial tenant improvement projects shall be constructed using the U.S. Green Building Council LEED-NC Version 2.2 rating system, or LEED-CI (Commercial Interiors) Version 2.0 rating system, whichever one the U.S. Green Building Council determines is the most appropriate. In the absence of a determination by the U.S. Green Building Council for specifying the applicable green rating system, the determination shall be made by the green building compliance official. The green building project checklist shall be the corresponding Registered Project Checklist published by the U.S. Green Council as required for the respective rating system used for the covered project.

f) Mixed-use projects shall meet the requirements in “a” through “e” above for both residential and commercial projects, for their respective parts, as if they were separate projects.

g) All city-sponsored projects shall use rating systems as specified in “a” through “f” above.

h) All city-sponsored projects that are either residential projects or mixed-use projects shall be constructed using the same green building rating system and green building project checklist as specified for non-city Sponsored projects.

2. Green Building Project Checklist: The Applicant may request to append the New Homes GreenPoint Checklist, GreenPoint Rating system for Remodeling Projects, or Multifamily GreenPoint Checklist at the time of pre-permitting documentation review. The green building compliance official shall approve such requests and specify the additional points allowed when findings are made that the request achieves one or more of the five goals specified in Section 14.50.010.

3. Plan Review and Construction Compliance for Covered Projects:

a) For other than registered LEED projects, the green building compliance official shall review the green building checklists, plans, and any other application documentation for compliance with chapter 14 of the municipal code. The green building compliance official shall also verify that the green building measures and provisions indicated in the pre-permitting documentation are being implemented at foundation inspection, framing inspection, any type of close-in inspection, and prior to approval of a final inspection. The green building compliance official shall conduct other inspections as needed to ensure compliance with chapter 14. The inspection and verification activities shall be conducted by a Build It Green Certified GreenPoint Rater or approved green building inspector. The rater or inspector may be an employee of the city or a third party whom the green building compliance official designates, provided she or he has a current Build It Green Certified GreenPoint Rater certificate. The Build It Green Certified GreenPoint Rater shall follow the procedural requirements of Build It Green including project registration to insure that quality assurance sampling is insured.

b) LEED projects that are registered shall follow the certifying and procedural requirements of the U.S. Green Building Council for the green building rating system used. Applicants of LEED registered projects shall submit proof of registration of the project with the U.S. Green Building Council within thirty (30) days of permit issuance. The applicant shall also provide the green building compliance official with online access to the U.S. Green Building Council website in order for the green building compliance official to monitor the submission of documents by the applicant to the U.S. Green Building Council. If the green building compliance official determines the project is no longer in compliance with the approved plans or approved pre-permitting documentation,

the green building compliance official may issue a stop order pursuant to Section 14.50.075.c.

4. Documentation for Final Determination of Compliance: Documentation shall be provided as described below:

a) Prior to final building inspection and approval for any covered single-family residential, multi-family residential, or mixed-use project, the applicant shall notify the green building compliance official that their project is ready for final inspection of green building features required by chapter 14.50 of the City of Sustainability Municipal Code. Upon the green building compliance official's receipt and review of documentation from the GreenPoint Rater demonstrating project compliance with the applicable compliance threshold requirements, the green building compliance official shall reach a final determination of compliance as specified in section 14.050.075.5.

b) Prior to approval of a final inspection for any covered commercial, city-sponsored, or mixed-use project, the applicant shall demonstrate substantial completion of the LEED documentation for the project as evidenced by accessing the online information of the project on the U.S. Green Building Council's website. Within one year of granting occupancy by the city, the applicant shall submit proof of LEED certification to the green building compliance officer. Failure to do so shall result in enforcement actions as provided in Section 14.50.100.

5. Self-certifying for LEED Projects:

a) Self-certifying projects do not require LEED registration or certification. Applicants are, however, encouraged to register their projects with the U.S. Green Building Council. Self-certifying projects that become LEED registered and certified need only attain a threshold level of green that is one level less than that required by city council resolution specified in Section 14.050.070.

b) Project Documentation for self-certifying projects shall be substantially the same as that which is required for LEED registered projects. The one exception is that instead of filing documents with the U.S. Green Building Council, the architect or engineer of record shall be the repository for all documentation related to the LEED rating system being used for the project. The architect or engineer of record shall make these documents available to the green building compliance official at her or his request.

c) Building commissioning, specified as a prerequisite for most LEED ratings is not required under this chapter for self-certifying projects. Applicants are encouraged to verify that fundamental building systems are designed, installed, and calibrated to operate as intended. Documentation of building commissioning

is required when commissioning measures other the prerequisites are included as a part of the designated points in the pre-permitting documentation.

d) Inspection of self-certifying projects shall be as specified in item 3.a of this Resolution.

Table 1
Compliance Thresholds for Covered Projects

Covered Project Type	Tier 1	Tier 2	Tier 3
SFD New	Build It Green <i>2007 New Home Construction Green Building Guidelines</i>		
SFD Addition	Build It Green <i>2007 Home Remodeling Green Building Guidelines</i>		
MFD New	Build It Green <i>2008 Multi-family Green Building Guidelines</i>		
MFD Remodel	Not Applicable		
Commercial, New	U.S. Green Building Council <i>LEED for New Construction Version 2.2</i> or <i>LEED Core and Shell Version 2.0</i>		
Commercial, TI	U.S. Green Building Council <i>LEED for New Construction Version 2.2</i> or <i>LEED for Commercial Interiors Version 2.0</i>		
City Sponsored	As per project type above		

COMPLIANCE THRESHOLDS FOR GBO

1. Compliance Thresholds for Covered Projects: All covered projects shall meet minimum compliance thresholds based upon the covered project type and tier as set forth in City of Sustainability Municipal Code Section 14.50.070 and Table 2 of this resolution.

Table 2
Compliance Thresholds for Covered Projects

Covered Project Type	Tier 1	Tier 2	Tier 3
SFD New	50 (or more) Points	50 (or more) Points	50 (or more) Points
SFD Addition	1 point		
MFD New	50 (or more) Points		
MFD Remodel	Not Applicable		
Commercial, New	LEED Certified	LEED Silver	LEED Silver

	Self-certifying	Self-certifying	Registered
Commercial, TI	35% of all possible LEED points. Self-certifying	45% of all possible LEED points. Self-certifying	55% of all possible LEED points. Self-certifying
City Sponsored	LEED Certified Self-certifying	LEED Silver Self-certifying	LEED Silver Registered

2. The architect or engineer of record for covered project types, which are required to meet a percentage of all possible LEED points, shall submit a list of possible LEED points as a part of the pre-permitting documentation. Approval of the list of possible LEED points shall be determined by the green building compliance official.
Green building ordinance

Additional Issues to address:

- Consistency with General Plan
- Green building requirements for civic facilities
- Energy ordinance, CEC certification, BSC certification
- Construction and Demolition ordinance provision to produce 50% diversion
- Bans on new unsealed fireplaces

ATTACHMENT E: SAMPLE ORDINANCE

ORDINANCE NO. ____

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF SUSTAINABILITY, CALIFORNIA, ADDING CHAPTER 14.50, “GREEN BUILDING,” TO THE SUSTAINABILITY MUNICIPAL CODE (LOCAL GREEN BUILDING REQUIREMENTS FOR BUILDING CONSTRUCTION)

WHEREAS, the Sustainability City Council has identified sustainability as one of its major goals; and

WHEREAS, green building is a key component to sustainability; and

WHEREAS, on _____, the Sustainability City Council directed staff to prepare an ordinance requiring the mandatory implementation of green building techniques in new construction; and

WHEREAS, on _____, the Sustainability City Council, by resolution, adopted Build It Green’s New Home Construction, Multi-Family and Remodeling Green Building Guidelines as a referenced standards for green building; and

WHEREAS, on _____, the Sustainability Planning Commission, by resolution, recommended approval of the proposed addition of Chapter 14.50, “Green Building,” to the Sustainability City Council; and

WHEREAS, green building benefits can be spread throughout the systems and features of a building. Green buildings can include the use of certified sustainable wood products and high-recycled-content products. Recycling of waste that occurs during demolition, deconstruction, and construction reduces the amount of waste deposited in landfills. The proper orientation and passive solar design of a building reduces demands on its heating and cooling systems. The use of advanced-design heating, ventilating, and air conditioning systems provide increased energy efficiency and improved indoor air quality. Enhancement of indoor air quality is also achieved by the selection and use of construction materials that do not emit chemicals which are toxic or irritating to building occupants. The use of water conserving methods and equipment reduce the per capita demand on resources and infrastructure. The installation of alternative and renewable energy systems can supplement conventional methods of energy production; and

WHEREAS, in recent years, green building design, construction and operational techniques have become increasingly widespread. Many homeowners, businesses, and building professionals have voluntarily sought to incorporate green building techniques into their projects. A number of regional and national systems have been developed to serve as guides to green building practices. The U.S. Green Building Council, developer of the Leadership in Energy and Environmental Design (LEED®) Green Building Rating

Systems and LEED® Reference Guide, has become a leader in promoting and guiding green building. In California, the GreenPoint Rated system, was designed by Build It Green with the special needs and circumstances of California residential construction in mind. Build It Green in association with a wide variety of public and private sector stakeholders has developed a range of residential green building guidelines that serve as the foundation for the GreenPoint Rated system; and

WHEREAS, Chapter 14.50, “Green Building,” is intended to raise the level of construction practices in the City of Sustainability in order to encourage water and resource conservation, reduce waste generated by construction projects, increase energy efficiency in buildings, provide durable buildings that are efficient and economical to own and operate and promote the health and productivity of residents, workers, and visitors to the City; and

WHEREAS, nothing in this ordinance is intended to duplicate, contradict, or enter a field which has been fully occupied by state law, including the California Building Standards Code; and

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF SUSTAINABILITY, CALIFORNIA, does hereby ordain as follows:

SECTION 1. Findings.

The City Council finds that:

15.04.890.020 Findings

The City Council of the City of Sustainability finds as follows:

- (a) A duly noticed public hearing regarding the proposed amendment to the Municipal Code was held by the City Council on
- (b) The proposed Chapter 14.50, “Green Building,” preserves and enhances the environment, in that it would set forth minimum green building requirements within the City of Sustainability for all new residential and non-residential construction, commercial tenant improvements, and residential additions more than 500 square feet in floor area.
- (c) The City of Sustainability’s General Plan sets forth goals for preserving and improving the natural and built environments of the City, protecting the health of its residents and visitors and fostering its economy; and
- (d) The demolition, design, construction, and maintenance of buildings and structures within the City has a significant impact on the City’s environmental sustainability, resource usage and efficiency, greenhouse gas emissions, waste management, and the health and productivity of residents, workers, and visitors; and

- (c) Emissions from conventional construction materials such as paints, carpets, and particleboard can lead to health problems associated with poor indoor air quality and these health problems can result in lost productivity, lowered employee morale, and increased health care costs; and
- (d) Conventional building design, construction and operation methods not only can negatively affect the health of the people who live and work in them, but can also negatively impact the environment; and
- (e) Building construction, operations and demolition consume 40% of total energy and raw material use, and each year in the U.S., building-related activities are responsible for 30% of the nation's carbon dioxide emissions, 40% of ozone pollution, and 35% of municipal solid waste; and x% of carbon emissions, and
- (f) Green Building refers to a whole systems approach to the location, design, construction, and operation of buildings, the benefits of which are spread throughout the systems and features of the building and environment; and
- (g) Green Building can include, among other things, the use of certified sustainable wood products; a substantial increase in the use of high recycled content products; recycling of waste that occurs during deconstruction, demolition, and construction; enhancement of indoor air quality by selection and use of construction materials that do not have chemical emissions that are toxic or irritating to building occupants; modification of heating, ventilation, and air-conditioning systems to provide energy efficiency and improved indoor air; use of water conserving methods and equipment; and installation of alternative energy methods for supplemental energy production; and
- (h) Green Building design and construction decisions made by the City and private builders in the construction and remodeling of buildings can result in significant cost savings and environmental benefits to the City residents over the life of the buildings; and
- (i) It is critical to both the economic and environmental health of the City of Sustainability that the City provide leadership to both the private and public sectors in the arena of energy efficiency and "green" construction; and
- (j) Requiring certain building projects within the City to incorporate green building practices is necessary and appropriate to achieve the benefits of Green Building in the City of Sustainability and implement commitments made by the City of Sustainability in signing the U.S. Mayors Climate Protection Agreement which commits the City to reduction in greenhouse gas emissions
- (k) Nothing in this Ordinance is intended to duplicate, infringe or contradict the provisions of the California State Building Code or any other State law. The Ordinance and associated green building guidelines provide many opportunities to attain required credits in manners that do not exceed, alter or contradict standards or provisions in established State building laws.

(l) This proposed Ordinance will preserve and enhance the environment within the City of Sustainability and is exempt from the requirements of the California Environmental Quality Act, as amended, pursuant to Section 15061(b)(3) of the CEQA Guidelines which exempts all projects where it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment.

SECTION 2. Chapter 14.50, “Green Building,” is hereby added to Title 14, “Sustainability,” of the Sustainability Municipal Code to read and provide as follows: “Chapter 14.50, Green Building

14.50.010 Purpose

The purpose of this Chapter is to enhance public health and welfare and assure that further residential, commercial, and civic development is consistent with the city’s desire to create a more sustainable community by incorporating green building measures into the design, construction, and maintenance of buildings. The green building provisions referenced in this chapter are designed to achieve the following goals:

- A. Encourage water and resource conservation;
- B. Reduce waste generated by construction projects;
- C. Increase energy efficiency in buildings;
- D. Provide durable buildings that are efficient and economical to own and operate; and
- E. Promote the health and productivity of residents, workers, and visitors to the city.

14.50.020 Definitions.

For the purposes of this chapter, certain words and terms used are defined as follows:

“Applicant” means any entity that applies to the city for the applicable permits to undertake any covered project within the city.

“Approved green building inspector” means a person or organization certified or designated by a green building rating system body to perform inspections and provide documentation related to the inspection and verification of covered projects. When not precluded by other requirements, an approved green building inspector also means the green building compliance official.

“Building” means any structure used for support or shelter of any use or occupancy, as defined in the California Building Standards Code.

“Building commissioning” means the testing of a building’s equipment and systems to ensure that systems are designed, installed, functionally tested, and capable of being operated and maintained to perform in conformity with the design intent.

“Certified green building rater” means a person or organization certified or designated by a green building rating organization associated with a specific green building rating system adopted by City Council resolution for performing inspections and providing documentation to assure compliance with green building requirements.

“City” means the city of Sustainability.

“City Council” means the Sustainability city council, or a board or commission, designated by the Sustainability city council.

“City provided services” means services performed by the city including, but not limited to, the checking of plans, inspection of projects, review of covered project documentation, issuance of certificates, or any other similar services necessary for the implementation of this chapter.

“City-sponsored project” means a building(s) funded more than 50 percent by the city and sponsored by the city. A city-sponsored project is on property that is not a part of the public-right-of-way and may, or may not, be on city-owned land.

“Code” means the Sustainability Municipal Code.

“Commercial new” means the construction of an entirely new retail, office, industrial, warehouse, or service building(s) within city limits that is not a city-sponsored project, a residential project, or a mixed-use project.

“Commercial tenant improvement (TI)” means the renovation, remodeling, or rehabilitation of any existing retail, office, industrial warehouse, or service building(s), including additions, within city limits that is not a city-sponsored project, a residential project, or a mixed-use project.

“Compliance documentation” means all documentation required by a green building rating system indicating the compliance threshold level that has been achieved. Compliance documentation includes, or excludes, specific requirements as set forth by city council resolution.

“Compliance threshold” means the minimum number of points or rating level of a green building rating system, as specified by city council resolution that must be attained for a particular covered project type and tier for a covered project.

“Construction” means the building or renovation, whether adding additional square footage or not, of any structure or any portion thereof.

“Covered project” means any project that is not a “non-covered project.”

“Covered project type” means the type and use of a building as defined in this chapter for the express purpose of determining application of a specific guideline. Covered project types include single-family dwelling new, single-family dwelling addition, multi-family dwelling new, multi-family dwelling remodel, commercial new, commercial tenant improvement, mixed-use, and city-sponsored.

“Design review” means a review performed by the planning division for a covered project including, but not limited to, a building’s architectural components, specific plan, final development plan, or site plan architectural review.

“Final inspection” means the final inspection and approval required by the California Building Standards Code when a building is completed and ready for occupancy and use.

“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 green building compliance official has found the project meets the provisions of good faith effort pursuant to Section 14.50.075 (E) 1.

“Green building” means the design, construction, and operation of buildings that mitigates the environmental, economic, and social impacts of buildings.

“Green building appeals hearing officer” means the city manager of _____ or his or her designee

“Green building compliance official” means the building official or her or his designee.

“Green building project checklist” means a checklist or scorecard developed for the purpose of calculating a green building rating.

“Green building rating” means the point or performance threshold proposed or achieved for the respective rating system used for a covered project.

“Green building rating system” means the rating system associated with a specific guideline adopted by city council resolution and used to determine compliance thresholds.

“Green building worksheet” means a worksheet or form developed by the city that specifies information to be submitted prior to an application for a building permit or any hearing for design review for a covered project. The green building worksheet shall specify the form and content of the required documentation.

“Guidelines” means the specified green building rating system that applies to a covered project as set forth by city council resolution in section.

“Hearing of non-compliant project” means a hearing held by the Green building appeals hearing officer to determine what equivalent measures must be taken by a project’s applicant to change the status of a project from non-compliant to compliant by satisfying compliance threshold requirements through alternate means.

“Historic Building” means any Building listed on a national, state or local register or listing of historic resources.

“Infeasible” means the existence of obstacles, as set forth in section 14.50.080 that render the applicant incapable of fulfilling the requirements of meeting this chapter.

“LEED®” means any one of the U.S. Green Building Council’s Leadership in Energy and Environmental Design green building rating systems or programs.

Council as ha“LEED® Accredited Professional” means a person who is accredited by the U.S. Green Building having a thorough understanding of green building practices and principles and familiarity with LEED® requirements, resources and processes.

“Mixed-use project” means a building(s) within city limits that combines the uses of a commercial project and a residential project.

“Multi-family residential project (MFD)” means a residential project containing more than two attached dwelling units, including apartments, condominiums, and townhouses, excepting townhouses that meet the definition of single-family dwellings.

“Non-covered project” means:

- A. Any new construction that is subject to the provisions of any development agreement existing on the date this ordinance takes effect.
- B. Any design review application deemed complete or any building permit application meeting the standards for building permit acceptance by the Building Division prior to the effective adoption date of this chapter. If any such applications expire prior to issuance of a building permit, those projects will become subject to the requirements of this chapter.
- C. Repair or renovation of any structure (regulated by the California Building Standards Code) for the express purpose of performing “seismic upgrades”.
- D. Structural and non-structural work authorized under the same building permit for seismic upgrades that is required as a result of performing seismic upgrades.
- E. Any project where a building permit is issued for the sole purpose of performing plumbing, electrical, or mechanical work.
- F. Installation of a roof covering on any existing building.
- G. Any covered project type that has not had a compliance threshold set by city council resolution.
- H. Repair of any structure (regulated by the California Building Standards Code) that is necessary when the structure has been damaged by fire, flood, wind, earthquake, or accident.
- I. Any project specified by city council resolution as a non-covered project.

J. Swimming pools

K. Historic Building

L. Civic facilities which are located within leased buildings

“Pre-permitting documentation” means the documentation required by Section 14.50.050.

“Renovation” means any rehabilitation, repair, remodeling, change, addition, or modification to an existing building.

“Residential project” means any building within city limits used for living, sleeping, eating, and cooking. Residential project includes single-family new, single-family addition, and multi-family new. For the purposes of this chapter, a residential project includes assisted-living facilities and senior housing. A residential project does not include hotels, motels, inns, or similar commercial enterprises wherein rooms or suites of rooms are rented for transient occupancy and are considered commercial projects.

“Self-certified” means a project where, after completion, the architect or engineer of record has submitted compliance documentation to the green building compliance official certifying that the project has met the standards specified in the guidelines and has attained the compliance threshold as indicated for the covered project type and tier as set forth by city council resolution.

“Single-family addition” means any residential project that adds new floor area, as defined in chapter 17 of this code, to an existing residence. Single-family residential additions may be attached or detached.

“Single-family dwelling” (SFD) means a residential project on a single parcel containing one dwelling unit, or one dwelling unit with a legal second unit as defined in chapter 17 of this Code, or a duplex. For the purposes of this chapter, townhouses shall be considered single-family residential projects provided there are recorded property lines between each unit and the occupancy group and division of each unit is designated as an R-3 as defined in the California Building Standards Code.

“Stop order” means a written notice to stop work, as defined in the California Building Standards Code, that is served by the building official on any person engaging in work contrary to the provisions of this code.

“Structure” means that which is built or constructed, an edifice or building of any kind or any piece of work artificially built or composed of parts joined together in some definite manner and permanently attached to the ground, as defined in the California Building Standards Code.

“Tier” means the level of compliance, as indicated by Tier 1, Tier 2, or Tier 3 in Table 1 – Tiers, for a given covered project type. Tier levels are determined by housing density for single-family, number of dwelling units for multi-family residential new projects, number of dwelling units for multi-family remodel projects, and floor area for all other covered project types. Specified green building standards and compliance thresholds for each tier of each covered project type shall be as set forth by city council resolution.

D. Documentation.

1. Residential Projects. Applications for building permits for covered residential projects shall submit two (2) sets of a completed green building rating calculator and supporting documentation indicating the measures to be used to achieve the required number of points in each rating category. The submitted green building rating calculator shall be prepared or certified as accurate by a certified green building rater. Building plans shall indicate in the general notes or individual detail drawings, where appropriate, the green building measures to be used to attain the required number of points.

E. Review of Documentation. If the chief building official determines that the green building documentation fails to indicate that the project will conform to the standards for compliance, the documentation shall be returned to the applicant as incomplete, with an indication of additional information or project modifications that may be required for approval. A building permit, including a grading permit, shall not be issued until the submittal documentation has been approved.

F. Verification.

1. Residential Projects.

A certified GreenPoint Rater or city building inspector shall verify that the green building measures indicated in the approved green building documentation have been implemented through inspections during the construction of the project or through review of purchase receipts or photographic documentation. At the completion of project construction, the certified green building rater or city building inspector shall verify compliance with the approved green building documentation and the standards for compliance. During the verification process for the project, flexibility may be exercised by substituting other allowable compliance measures. Substitution of measures must be approved by the chief building official by submittal and approval of a revised green building rating calculator by the certified green building rater. An occupancy permit or final inspection approval for the construction project shall not be granted until the chief building official has determined that all required green building measures have been implemented.

G. Costs of Verification. The costs for verification of compliance with green building requirements, including the hiring of a certified green building rater or a LEED[®] accredited professional, shall be borne by applicants for building permits.

14.50.030 General Provisions – Applicability.

A. Neither this chapter, nor any of its related green building resolutions, shall affect in any manner the permissible use of property, density/intensity of development, design and improvement standards, or other applicable standards or requirement of this code, all of which shall be operative and remain in full force and effect without limitation.

B. When the provisions of this chapter conflict with state law, state law shall govern.

14.50.040 Standard for Compliance.

A. Covered Projects. All covered projects shall be constructed using the guidelines, green building rating systems, and green building project checklists adopted by city council resolution.

B. Compliance as a Condition of Approval. Compliance with the provisions of this chapter shall be listed as a condition of approval on any design review approval (or use permit or tentative map) issued by the planning division (or Planning Department) for a covered project. Failure to comply with any of the terms of this chapter shall subject the applicant of the covered project to the full range of enforcement mechanisms set forth in Section 14.50.100.

14.50.050 Submission of Pre-permitting Documentation.

A. Pre-permitting Documentation. Prior to the application for design review or a building permit, whichever comes first, the applicant shall submit documentation indicating the measures to be used to achieve the applicable compliance threshold. This pre-permitting documentation shall include:

1. Applicable green building project checklist; and
2. Applicable green building worksheet with an analysis of each credit claimed; and
3. Any other documentation that may be necessary to show compliance with this Chapter.

B. Non-Covered Projects. Non-covered projects are exempt from the requirements of this section.

14.50.060 Review of Pre-permitting Documentation.

A. Review and Pre-Hearing Meeting. After submission of the pre-permitting documentation required by section 14.50.050 (A), but prior to the hearing of the design review or application for a building permit, the green building compliance official shall review the pre-permitting documentation for compliance with this chapter and arrange a

meeting with the applicant to review and discuss the proposed green building measures. The green building compliance official has the authority to waive this meeting requirement under the following circumstances:

1. The applicant's plans have been previously approved under a prior permit for the same model of a single-family or multi-family building provided the plans for the new application follow the same green building compliance standards and compliance threshold as the previously approved plans.
2. Applications for additions and remodels of residential structures.
3. The pre-permitting documentation clearly indicates the project exceeds the minimum requirements of this chapter.

B. Approval. The green building compliance official shall approve the pre-permitting documentation only if it is determined that the pre-permitting documentation indicates the covered project can achieve the applicable compliance standards and threshold, set forth in sections 14.50.040 and 14.50.070. If the green building compliance official determines these conditions have been met, the pre-permitting documentation shall be marked "approved," and returned to the applicant. The green building compliance official shall provide a copy of the approved pre-permitting documentation to the planning and building divisions. A building permit shall not be issued until the pre-permitting documentation has been approved under this section or an exemption has been granted under Section 14.50.080.

C. Non-Approval. If the green building compliance official determines the pre-permitting documentation is incomplete or fails to indicate that the covered project will meet the required green building rating for a covered project as set forth in Sections 14.50.040 and 14.50.070, she or he shall either:

1. Return the pre-permitting documentation to the applicant marked "Denied," including a statement of reasons, and notify the planning and building divisions of the denial; or
2. Return the pre-permitting documentation to the applicant marked "Further Explanation Required," and detail the additional information needed.

D. Re-Submission. If the pre-permitting documentation is returned to the applicant, the applicant may re-submit the pre-permitting documentation with such additional information as may be required or may apply for an exemption under Section 14.50.080.

E. Waiver of Review. The green building compliance official may waive the initial review of pre-permitting documentation when she or he determines that review of the pre-permitting documentation can be carried out during the regular building permit plan review process, such as when multiple projects of a subdivision are submitted at different times and the projects are very similar in nature.

Table 1 – Tiers

Covered Project Type	Tier 1	Tier 2	Tier 3
SFD New	> 12 dwelling units/acre	7-12 dwelling units/acre	1-6 dwelling units/acre
SFD Addition	> 500 square feet		
MFD New	< 20 dwelling units	20-50 dwelling units	> 50 dwelling units
MFD Remodel	< 20 dwelling units	20-50 dwelling units	> 50 dwelling units
Commercial, New	< 20,000 square feet	20,000-50,000 square feet	> 50,000 square feet
Commercial TI	< 20,000 square feet	20,000-50,000 square feet	> 50,000 square feet
City Sponsored	< 10,000 square feet	10,000-20,000 square feet	> 20,000 square feet

14.50.070 Compliance Threshold for Levels of Green Building Established

A. Compliance threshold levels for green building are hereby established for all covered projects within the city.

B. The city council shall, by resolution, set forth the specific compliance threshold required for each covered project type and tier in Table 1 – Tiers.

14.50.075 Compliance.

A. Building Permit Documentation. With the application for a building permit, the applicant shall submit:

1. A copy of all approved pre-permitting documentation with the first building permit plan set submittal. If an applicant is proposing changes to the approved pre-permitting documentation, a supplemental green building project checklist shall be submitted indicating all differences from the approved pre-permitting documentation. Under no circumstances shall the proposed changes cause the covered project to be out of compliance with the applicable compliance threshold requirements. The green building compliance official shall reject applications and return plans to the applicant when changes to the green building project checklist result in the project being unable to meet the required compliance threshold.
2. Building plans shall have a copy of the approved green building project checklist printed on the plans. Notwithstanding any other provision of this code, no building permit shall be issued for any covered project unless and until the green building compliance official has approved the pre-permitting documentation, including any subsequent changes to the green building project checklist, along with building construction documents and plans.

B. Plan Review and Construction Compliance. Plan review and inspection of covered projects shall be as set forth by city council resolution.

C. Non-compliance. If, as a result of any inspection, the City determines that the covered project does not comply with the approved plans, a stop order shall be issued if the green building 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 green building compliance official determines that the covered project will be brought into compliance with the approved plans.

D. Documentation for Final Determination of Compliance. Compliance documentation shall be submitted to the green building compliance official as set forth by city council resolution.

E. Final Determination of Compliance. Prior to approving a final inspection for a covered project, the green building compliance official shall review the documentation submitted by the applicant, along with inspection records and certificates submitted by the approved green building inspector(s), and determine whether the applicant has achieved the required compliance threshold as set forth in Sections 14.50.040 and 14.50.070. If the green building compliance official determines the applicant has met the requirements of chapter 14.50 for covered projects, the green building compliance official shall make a final determination that the covered project is ready for a final inspection, provided the covered project has received approval of all inspections required by the California Building Standards Code. If the green building compliance official determines the applicant has not achieved the required green building rating, the green building compliance official shall find for one of the following:

1. Good Faith Effort to Comply. A good faith effort to comply shall apply to items on the green building project checklist on an individual basis. 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 project checklist. When an applicant submits a request in writing to the green building compliance official for approval of a good faith effort to comply, and when the green building compliance official determines that the covered project has not met one or more of the requirements for the applicable compliance threshold as set forth in Sections 14.50.040 and 14.50.070, the green building compliance official shall determine that the applicant has made a good faith effort to comply with this chapter when any of the following findings can be made:

a. The cost for providing green building documentation is disproportionate to the overall cost of the project. That is, the cost for compliance documentation is more than 2.5 percent of the total construction cost; or

b. The green building materials and technologies on the green building project checklist are no longer available or not yet commercially available.

2. Non-compliant Project. If the green building 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 by section 14.50.075 (D) 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. Applicants for projects deemed to be non-compliant shall file an application for hearing of non-compliant project with the Green building appeals hearing officer. A final inspection shall not take place until the applicant has implemented equivalent alternate measures approved by the Green building appeals hearing officer at a hearing of non-compliant project.

14.50.080 Infeasibility Exemption.

A. Exemption. If an applicant for a covered project believes that circumstances exist that make it infeasible to meet the requirements of this chapter, the applicant may apply for an exemption as set forth in this section. In applying for an exemption, the burden is on the applicant to show infeasibility.

B. Application. If an applicant for a covered project believes such circumstances exist, the applicant may apply for an exemption of one or more items on the green building project checklist at the time that she or he submits the pre-permitting documentation required under section 14.50.050. The applicant shall indicate in the pre-permitting documentation the maximum number of credits she or he believes is feasible for the covered project and the circumstances that she or he believes make it infeasible to fully comply with this chapter. An infeasibility exemption shall be made if any one of the following conditions exist:

1. There is a lack of available or affordable consulting support as described in section 14.50.075 (E)(1)(a); or
2. There is a lack of commercially available green building materials and technologies; or
3. There is conflict with the compatibility of the requirements of the green building rating system and the California Building Standards Code.
4. The green building compliance standards do not include enough green building measures that are compatible with the scope of the covered project.

C. Granting of Exemption. If the green building compliance official determines it is infeasible for the applicant to meet the requirements of this chapter based on the information provided, the green building compliance official shall return a copy of the pre-permitting documentation to the applicant marked "Approved with Exemption." The green building compliance official shall provide a copy of the approved pre-permitting documentation marked "Approved with Exemption" to the planning and building

divisions. If an exemption is granted, the applicant must still comply with this chapter in all other respects and shall be required to achieve the compliance threshold, less the credits or points that would have been achieved for the exempted items. Anyone may appeal to the Green building appeals hearing officer the determination of the green building compliance official to grant or deny an exemption.

D. Denial of Exemption: If the green building compliance official determines that it is possible for the applicant to fully meet the requirements of this chapter, the green building compliance official shall so notify the applicant in writing. The applicant may resubmit the pre-permitting documentation in full compliance with sections 14.50.050 and 14.50.060. If the applicant does not resubmit the pre-permitting documentation, or if the resubmitted pre-permitting documentation does not comply with sections 14.50.050 and 14.50.060, the green building compliance official shall deny approval of the pre-permitting documentation in accordance with section 14.50.060 (C).

14.50.090 Appeal.

A. Any applicant or person may appeal to the Green building appeals hearing officer the determination of the green building compliance official regarding:

1. The granting or denial of an exemption pursuant to section 14.50.080; or
2. Compliance with the ordinance pursuant to sections 14.50.040, 14.50.070, or 14.50.075.

B. Appeals to the Green building appeals hearing officer must be filed in writing with the city clerk within 15 days of the determination by the green building compliance official. The appeal shall state the alleged error or reason for the appeal. In reviewing the appeal, the Green building appeals hearing officer may request additional written or oral information from the applicant or the green building compliance official. The Green building appeals hearing officer shall issue a written determination within 30 days of the receipt of the appeal.

C. Any applicant or person may appeal to the city council the determination of the Green building appeals hearing officer regarding:

1. Compliance with the ordinance pursuant to sections 14.50.040, 14.50.070, or 14.50.080; or
2. Determination of alternate means as approved by the Green building appeals hearing officer at a hearing for non-compliant project, pursuant to section 14.50.075.

D. Appeals to the city council must be filed in writing with the city clerk within 15 days of the mailing of written determination by the Green building appeals hearing officer. The appeal shall state the alleged error or reason for the appeal. In reviewing the appeal,

the city council may request additional written or oral information from the applicant, the Green building appeals hearing officer, or the green building compliance official. The city council shall hold a hearing and issue a written determination within 45 days of the receipt of the appeal.

14.50.100 Enforcement.

A. Violation. Violation of any provision of this chapter due to the applicant's failure to build the covered project in accordance with the covered project's plans, including the pre-permitting documentation and the conditions of approval in the applicable permit, shall be punishable as an infraction as provided in chapter 1.16 of this code.

B. Civil Penalties. Any person who violates any provision of this chapter is liable to the City for a civil penalty of one thousand dollars.

C. Cumulative Remedies. The foregoing remedies shall be deemed nonexclusive, cumulative and in addition to any other remedy the City may have at law or in equity, including but not limited to injunctive relief to prevent violations of this chapter.”

17.50.080 Hardship or Infeasibility Exemption.

a. 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 Chapter, he or she may apply for an exemption as set forth below. In applying for an exemption, the burden is on the applicant to show hardship or infeasibility.

b. Application: If an applicant for a covered project believes such circumstances exist, the applicant may apply for an exemption at the time that he or she submits the pre-permitting documentation required under Section 17.50.050. 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.

c. Meeting with Green Building Compliance Official: The Green Building Compliance Official shall review the information supplied by the applicant, may request additional information from the applicant, and may meet with the applicant to discuss the request.

d. Granting of Exemption: If the Green Building Compliance Official 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 Green Building Compliance Official 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. The Green Building Compliance Official shall return a copy of the pre-permitting documentation to the applicant marked “Approved with Exemption” and shall notify the Building Division that the pre-permitting documentation has been approved. If an exemption is granted, the applicant shall be required to comply with this Chapter in all other respects and shall be required to achieve, in accordance with this Chapter, the number of credits determined to be achievable by the Green Building Compliance Official.

e. Denial of Exemption: If the Green Building Compliance Official determines that it is possible for the applicant fully meet the requirements of this Chapter, he or she shall so notify the applicant in writing. The applicant may resubmit the pre-permitting documentation in full compliance with Sections 17.50.050 and 17.50.060. If the applicant does not resubmit the pre-permitting documentation, or if the resubmitted pre-permitting documentation does not comply with Sections 17.50.050 and 17.50.060, the Green Building Compliance Official shall deny the pre-permitting documentation in accordance with Section 17.50.060(b).

SECTION 3. SEVERABILITY

If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Chapter, or any part thereof, is for any reason held to be unconstitutional, invalid, or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of this Chapter or any part thereof. The City Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause, and phrase of this Chapter irrespective of the fact that one or more sections, subsections, subdivisions, paragraphs, sentences, clauses, or phrases be declared unconstitutional, invalid, or effective. To this end, the provisions of this Chapter are declared to be severable.

SECTION 4. APPLICABILITY

This ordinance shall not be applicable to any development project for which an application has been filed for a building permit prior to the effective date of the ordinance.

SECTION 5. EFFECTIVE DATE

This ordinance shall be in full force and effective on July 1, 200X, no less than 30 days after its adoption, and shall be published or posted as required by law.

This ordinance was introduced on the __ day of _____, 200_ and
DULY AND REGULARLY ADOPTED this __ day of _____, 200_ by the following
vote:

- AYES:
- NOES:
- ABSENT:

ABSTAIN:

CITY OF SUSTAINABILITY

/s/Mayor John Doe

ATTEST:

/s/City Clerk Jane Doe

APPROVED AS TO FORM:

/s/City Attorney

APPENDIX B: PROCESS FOR REVISING BUILD IT GREEN GUIDELINES

PURPOSE

This proposed protocol shall set a standard for development and implementation of Green Building Guideline Revisions. The purpose of defining a protocol is to enhance the credibility of the Guidelines and GreenPoint Rated program by establishing a clearly defined process for revisions. The protocol will:

1. Ensure quality control of the process
2. Establish policies and methods for public review and comment
3. Set clear parameters for collaboration between participating parties

I. PARTICIPATING PARTIES

- A. Project Team – the Project Team is made up of core participating and stakeholder members (Green Building of Alameda, Build It Green, KEMA, Practica). They provide direction and management of revision process. They have decision making authority over membership in the Stakeholder Forum and Technical Advisors.
- B. Stakeholder Forum (s) – The Stakeholder Forum is made up of community and private stakeholders invited by the Project Team. They provide input and comments into the Preliminary Draft revisions and make suggestions for revisions.
- C. Technical Advisors – The Technical Advisors are field experts providing content for the guidelines. They are solicited by the Project Team and provide input for specific content according to their expertise. Members of the Technical Advisors will include at least one technical personnel from the Project Team entities who will have oversight for the entirety of the guidelines to ensure consistency of the guidelines.
- D. GreenPoint Rated Oversight Committee – The GreenPoint Rater Oversight Committee, as approved by the Build It Green Board will have final voting rights over the Guideline content. Membership includes eleven members covering the range building industry stakeholders, including GreenPoint Rates, government representatives, and builders.
- E. Other Participants
 - Public Comment participants
 - Builder’s Council
 - Pertinent Project Team staff

II. REVISION PROCESS

- A. POLICIES AND PROCEDURE
 1. Revisions Announcement – A two month period of time whereby the following will occur:
 - a. A public announcement is made and a two month public comment period is provided via the Build It Green website
 - b. Specific feedback questions may be generated and dispersed via website or direct email.
 - c. Project Team and technical advisors review Guidelines in its entirety and select items for revision.
 - d. Comments are reviewed on an ongoing basis and are made public on the website for 6 months after the Final Revisions are complete.
 2. Preliminary Draft of Recommendations for Revisions Created – A one month period of time where the following occurs:
 - a. The Project Team compiles the information generated in the Revision Announcement Period
 - b. The Project Team prepares a Preliminary Draft of items for further review by the Stakeholder Forum and/or the Technical Advisors based upon review.

3. Preliminary Draft outlines measures to be added deleted or revised, reviewed by multiple parties over a two month period of time
 - a. Stakeholder Forums
 - 3 to 4 meetings to review and give feed back on the Preliminary Draft.
 - Meetings are held in various geographic locations across the state to ensure statewide input
 - At least on meeting occurs via conference call instead of in person to offer an opportunity for comments from those unable to travel to attend the in person meetings.
 - b. Stakeholder Technical Group
 - A selection of 20-30 people are selected from the Stakeholder Forum invitation list by the Project Team to participate in an in-depth session to give detailed feed back and suggestions on the Preliminary Draft.
 - c. Builders Council – review and provide feedback on Preliminary Draft
 - d. Oversight Committee – review and provide feedback on Preliminary Draft
4. Revised Draft Developed – Minimum two month period of time
 - a. Project Team coordinates development of Revised Draft
 - b. Integrate/address stakeholder comments received during process above
 - c. Specified Technical Advisors provide content for measures scheduled for addition or revision. Solicit input from Technical Advisors to address particular issue
5. Post Revised Draft on website for public comment – Minimum 30 days
6. Final Draft - Completed through Project Team Meeting(s), based on above
 - a. Oversight Committee Review and sign-off
 - b. Graphic layout, proofing, and printing
7. GreenPoint Checklist Revisions
 - a. Revisions made based on changes in guidelines and input from stakeholders
 - b. Pilot project validation - project run-throughs for 2005/2009 checklist comparison
 - c. Builder’s Council and Public Agency Council review revisions
8. Rater Verification Methods
 - a. Specific verification requirements for GreenPoint Rated Program developed

III. PUBLIC COMMENT PROCESS

A. GENERAL PROCESS

1. The comment and review process is a public program to allow individuals and organizations to provide feedback and comments about the guidelines. There will be a minimum of two open comment periods for each revision; one two month period prior to a Preliminary Draft and another month period after the Final Draft and prior to Final Authorization of the Guidelines from the GreenPoint Rated Oversight Committee.
2. The process will be conducted through the Build It Green website. The Project Team may solicit feedback on specific issues or measures as well, by including questions in the electronic comment and review process. Response to comments will be made by individuals of the Project Team and/or Technical Advisory Board as directed by the Project Team. Final authorization of responses rests with the GreenPoint Rated Oversight Committee. A summary document will be posted on the website, providing the response and how the comment was treated for the upcoming revision.

B. ENTRY REQUIREMENTS

1. Comments are only accepted via an online comment form
2. Respondents are asked to submit constructive comments on individual credits or procedures, including recommendations for resolving any concerns identified
3. Responses will be publicized only on comments which include the author's name and organization represented (if any).

APPENDIX C: State Review of Local Adopted Energy Standards*

* This document is an excerpt from a more comprehensive document that will be released in Winter 2008. The following summarizes the steps of creating and implementing a local energy ordinance, or a green building ordinance which includes energy requirements, that exceed the California Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24, Part6):

1. Establish Ordinance (city/county staff)
2. Conduct Cost Effectiveness Study (city/county staff or consultant)
3. First Reading of Ordinance (City Council or Board of Supervisors)
4. Application to the California Energy Commission (CEC)
5. Second Reading of Ordinance (City Council or Board of Supervisors)
6. File with the California Building Standards Commission (BSC)
7. Implementation and Enforcement (city/county staff)

1. Establish Ordinance

Include the following findings in the ordinance:

- A clear policy statement outlining the green building or energy goals for each building type covered
- A general understanding of the relative impact on increased construction costs of the proposed ordinance
- A plan including the adoption timeline and approach for enforcement by the local building department

Specify thresholds for the more stringent energy requirements as defined by the following building permit scenarios:

- New construction vs. Additions vs. Alterations
- Occupancy type
- Number of stories and/or building height
- Total conditioned floor area

2. Conduct Cost Effectiveness Study

The jurisdiction makes an independent judgment as to the levels of energy efficiency appropriate for their permit applicants, usually requiring projects to be between 5% to 20% more energy efficient than Title 24, Part 6 depending on occupancy type and costs. A jurisdiction may choose for the ordinance to refer to one or more green building rating systems, such as LEED and GreenPoint Rated, which have standard minimum energy efficiency requirements for new construction and those requirements then become the basis for the local ordinance.

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A performance approach to compliance is encouraged over prescriptive requirements for the following reasons:

- To maintain consistency with State T-24 methodology of demonstrating performance above code
- To provide applicants with options to achieve the ordinance
- To avoid legal risk of mandating specific measures

The energy cost-effectiveness study is a consideration of the incremental first cost to achieve the required percentage above code as compared to the annual energy cost savings for the various building types. The cost-effectiveness study should inform the energy efficiency thresholds as part of the supporting documentation provided to members of the City Council or Board of Supervisors prior to the vote on the ordinance. The completeness, accuracy or relevance of the cost-effectiveness study submitted to the CEC is the responsibility of the local City Council or Board of Supervisors.

NOTE: Solar Photovoltaic (PV) credit: To ensure consistency with State programs and maximum benefit to applicants seeking to apply for available incentives, a local energy ordinance that includes provisions for PV must meet all installation criteria in the "Guidelines for California's Solar Electric Incentive Programs Pursuant to Senate Bill 1." The methodology used to calculate the energy equivalent to the solar PV credit shall be the CECPV Calculator using the most recent version prior to the permit application date, which may be found at: <http://www.gosolarcalifornia.ca.gov/nshpcalculator/>.

Because energy-efficiency is a more cost-effective investment than generation, programs such as State and Utility incentives, LEED and GreenPoint Rated award solar PV credit only *after* a building has already achieved the minimum energy efficiency performance.

3. First Reading of Ordinance

An ordinance must have preliminary local approval *before* the application to the CEC can be submitted for state review. In most cases, that means a “first reading” or “introduction” of an ordinance, and its initial approval by the City Council or Board of Supervisors prior to its final adoption at a later date.

4. Application to the California Energy Commission (CEC)

Public Resources Code section 25402.1(h)(2) and the California Code of Regulations, Title 24, Part 1, Article 1, Section 10-106 establish that no local energy ordinance can be legally enforced unless the CEC first reviews the ordinance and finds that it “will require the diminution of energy consumption levels permitted by [Title 24].”. The following is the full text of section 10-106:

SECTION 10-106 – LOCALLY ADOPTED ENERGY STANDARDS

(a) *Requirements.* Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs provided

*the Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Part 6. Such local standards include, but are not limited to, adopting the requirements of Part 6 before their **Local Energy Ordinance Guide: StopWaste.Org 9/2/2008** effective date, requiring additional energy conservation measures, or setting more stringent energy budgets. Local adoption of the requirements of Part 6 before their effective date is a sufficient showing that the local standards meet the requirements of this section and Section 25402.1(f)(2) of the Public Resources Code; in such a case only the documentation listed in Section 10-106(b), and a statement that the standards are those in Part 6, need be submitted.*

(b) Documentation Application. Local governmental agencies wishing to enforce locally adopted energy conservation standards shall submit four copies of an application with the following materials to the executive director:

- 1. The proposed local energy standards.*
- 2. A study with supporting analysis showing how the local agency determined energy savings.*
- 3. A statement that the local standards will require buildings to be designed to consume no more energy than permitted by Part 6.*
- 4. The basis of the agency's determination that the standards are cost effective.*

NOTE: Authority cited: Section 25402.1, Public Resources Code. Reference: Section 25402.1, Public Resources Code.

The findings in the ordinance and scope of the cost-effectiveness study are at the discretion of the local jurisdiction. See example approved ordinances at: http://www.energy.ca.gov/title24/2005standards/ordinances_exceeding_2005_building_standards.html

CEC staff will review the ordinance, and may have comments or request clarification of language that they interpret as unclear or potentially in conflict with Title 24 Standards. From the date that the CEC receives an application expect a minimum of two to three months until formal review by the Commission. CEC's required findings are normally part of a CEC calendar of consent items and generally do not require the presence of local jurisdiction staff to be present in Sacramento to respond to questions or comments by the Commissioners.

5. Second Reading by City Council or Board of Supervisors

Final adoption of the ordinance by the local jurisdiction can occur any time after the date of CEC review of findings.

6. File with the California Building Standards Commission (BSC)

After the local energy ordinance has been adopted, it must be filed with the California Building Standards Commission (BSC). The BSC is responsible for administering California's building codes, including adopting, approving, publishing, and implementing codes and standards. However, the BSC does not review the energy ordinance or formally vote on it. The BSC clerk simply receives it and files it and nothing further.

NOTE: A *separate* finding has to be filed with BSC for mandatory green building standards that are more restrictive than the California Green Building Standards Code. This process is different than the one outlined in this document.

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7. Implementation and Enforcement

The effective date of the ordinance is generally 30 days (or some other specified number of days) after final ordinance adoption. Implementation of the ordinance requires building department staff training and resources such as:

- A concise summary of the local energy ordinance requirements for the building department to provide to permit applicants
- Provision for a clear methodology to meet green building program (e.g. LEED, GreenPoint Rated) energy requirements based on Title 24 calculations and documentation
- Clarification of how to calculate the extent to which a building exceeds Title 24 for specific building types
- Additional forms to supplement the standard Title 24 energy compliance report
- A commitment to improve enforcement of the Title 24 Standards as well as the requirements of the local ordinance