

## DEPARTMENT OF BUILDING INSPECTION

## City & County of San Francisco 1660 Mission Street, San Francisco, California 94103

## [Draft] ADMINISTRATIVE BULLETIN

NO. AB-093

**DATE:** January 1, 2011 (Interim bulletin superseding version of January 1, 2010 based

on code changes)

**SUBJECT:** Administration and General Design

TITLE: Implementation of Green Building Regulations

**PURPOSE:** The purpose of this Administrative Bulletin is to detail standards and procedures

for the implementation of the Green Building requirements of Chapter 13C of the

San Francisco Building Code effective January 1, 2011

**REFERENCE**: 2010 San Francisco Building Code, Chapter 13C

**DISCUSSION:** Project submittal documents, approved construction documents, and completed

projects must conform to the Green Building code requirements that are

established in Chapter 13C of the San Francisco Building Code, which combines all mandatory elements of the 2010 California Green Building Standards Code

(CALGreen) and stricter local requirements.

Herein, "specific locally required measures" refers to prescriptive measures required as a consequence of adopting the California Green Building Standards

Code, with local amendments.

At various project milestones, particularly at the conclusion of construction, the Department of Building Inspection must verify that Green Building requirements have been met. Under these implementation procedures, the majority of

verification is required to be provided to the Department of Building Inspection via a formal third-party certification under green building rating systems referenced in

Chapter 13C of the San Francisco Building Code, or by a third-party licensed

design professional.

Note: Future local, state or other regulations may change the scope and implementation of Green Building requirements. Project sponsors should verify that they are meeting all applicable code requirements, which may modify the standards and procedures addressed in this Administrative Bulletin.

## **IMPLEMENTATION**

### **Green Building Requirements to be Applied**

Green building requirements of Chapter 13C apply to all new construction in San Francisco, as well as certain major alterations and first time tenant improvements. To identify the specific green building requirements which apply to a project:

- Attachment A Table 1 of this bulletin summarizes the overall green building standard (LEED, GreenPoint Rated, or specific locally required measures only) that applies based on occupancy, project size, and whether the project is new construction or alteration. Table 1 also identifies the submittal required in order to confirm compliance with local requirements.
- Attachment B consists of three tables that itemize specific measures required:<sup>1</sup>
  - Table 1: Requirements for projects meeting a LEED standard
  - o Table 2: Requirements for projects meeting a GreenPoint Rated standard
  - Table 3: Specific Local Requirements for all other projects

## **Mixed Occupancy Buildings**

For mixed occupancy buildings where local standards reference a green building rating system (Attachment A, Table 1), the project sponsor may apply a single green building rating system to the entire building, and each portion of the building must meet the specific locally required measures applicable to that occupancy.

## Applicability of Green Building regulations based on date of Building Permit Application

The date of applicability of these Green Building requirements is January 1, 2011. Application of the Green Building requirements is based on the date of submittal of a building permit application.

In the case of Site Permits, the effective date shall be the date that the Site Permit application (not an addendum) is filed with the Department of Building Inspection. Neither addenda to site permits nor revisions to permit applications received before the effective date of the ordinance will be required to meet the green building requirements, unless such site permit addendum or revisions change the scope of the project such that a project that would have been previously exempt from green building requirements would be covered.

## PROJECT SUBMITTAL REQUIREMENTS

## Screening of Building Permit Applications for Applicability

Department of Building Inspection staff will screen all building permit applications to determine which Green Building regulations apply. Department of Building Inspection staff will verify that a copy of the "Green Building Submittal" form (Attachment

C-2, C-3, or C-4), confirming that the submittal conforms with San Francisco Building Code 13C, is properly completed and is incorporated into permit submittal documents. Permit applications will not be accepted for processing without this form.

Every permit application subject to these regulations, including relevant addenda, must be accompanied by a copy of Attachment B, Green Building Submittal form.

<sup>&</sup>lt;sup>1</sup> Attachment B is provided for reference only. For complete details on any specific requirement, refer to San Francisco Building Code Chapter 13C.

Submittal documents for all projects must include a checklist incorporated into the project plans indicating the required green building features, referencing, as appropriate, location of green building features in the submittal documents. Where submittal documents do not contain a complete set of construction details, such as in a site permit application, the submittal form using the templates in Attachment C shall, at a minimum, detail the specific green building requirements to be met and shall indicate which addendum or other document will provide compliance details for each required performance measure or credit.

LEED or GreenPoint Rated checklists in the format similar to Attachment C-2, C-3, or C-4 will be sufficient to meet this submittal requirement. This submittal checklist may be reformatted as needed to conform to plan submittal size if all information is provided.

## Compliance with the submittal requirements of Chapter 13C, Green Building Requirements, may be met in any of four ways:

- Registration and submittal for certification under LEED. For buildings that propose to meet LEED standards, the permit applicant must provide submittal documentation showing that the project will meet the appropriate LEED standards. See "Energy Compliance Guidelines for LEED projects" section below for details about energy compliance.
- 2. Registration and achievement of GreenPoint Rated status. For buildings that propose to meet GreenPoint Rated standards, the permit applicant must submit documentation showing that the project will meet the appropriate GreenPoint Rated standards.
- 3. Documentation of compliance with either LEED or GreenPoint Rated standards without registration and certification from those systems. The Green Building Compliance Professional of Record must provide submittal documentation showing that the project will meet the appropriate standards.
- 4. Registration and submittal for another rating system or documentation of equivalency as approved by the Director. For buildings that propose to meet such alternate standards, the Green Building Compliance Professional of Record must provide submittal documentation detailing compliance with the proposed standards.
- 5. Where neither LEED nor GreenPoint Rated is required, submit documentation of compliance with other applicable local requirements, including specific locally required measures, as well as stormwater, waste diversion, and energy performance exceeding by 15% the Title 24 Building Energy Efficiency Standards in effect at the time of permit submittal.

### **Green Building Compliance Professional of Record**

For options 3, 4, and 5 above, the owner or owner's agent must employ a Green Building Compliance Professional of Record who personally reviews and/or verifies, or directly supervises, persons who provide on site review or verification of compliance with San Francisco Building Code 13C requirements.

For compliance options 3, 4 and 5 above, the qualifications for Green Building Compliance Professional of Record include a license or registration as an Architect or Engineer, and specialized understanding of Green Building standards and technologies, and

- for LEED projects, such specialized understanding shall include LEED accreditation and successful completion of at least one LEED certified project
- for GreenPoint Rated projects, such specialized understanding shall include the GreenPoint Rater designation, or the project team shall include a person who is a GreenPoint Rater.

The Department of Building Inspection may request verification of such training or experience and may make an administrative determination as to the qualification of a person to act as such a Green Building Compliance Professional of Record.

A Green Building Compliance Professional of Record is responsible for providing verification to the Department of Building Inspection that all Green Building design and construction requirements are met. Where a Green Building Compliance Professional of Record is responsible for verifying compliance with the requirements of Chapter 13C, and no third party green building certification is to be achieved, project documents may be reviewed in detail in plan review and inspection, at standard hourly rates for staff time.

## **Compliance Guidelines: Energy**

San Francisco Building Code 13C requires building permit submittals to show that they meet and exceed the California Building Energy Efficiency Standards in effect at the time of permit submittal. The following guidelines explain when additional calculations and documentation, in addition to standard Title 24 submittals, are required. Attachment C, Supplementary Energy Compliance Documentation, provides a sample form that may be used to document such additional energy efficiency compliance.

Any building meeting a LEED standard under this ordinance must demonstrate energy compliance using one of the following methods:

- Perform the standard 2008 Title 24 performance analysis and submit documentation to demonstrate that the proposed building uses at least 15% less TDV energy than the standard design, excluding exterior lighting, process and receptacle loads in the %-less-TDV energy calculation. LEED-equivalent energy points for this calculation method are listed in Table 1. OR
- 2. Using the published LEED 2009 rules, submit documentation to demonstrate that the proposed building has an annual energy cost at least 15% less than a LEED baseline building (2008 Title 24 or ASHRAE 90.1-2007.) This analysis must include a detailed accounting of all on-site building energy use, including all exterior and security lighting, elevators, all process loads and receptacle loads. Documentation to be retained in the records of the project must include the full set of information required for Green Building Certification Institute LEED certification.

In each case, demonstration of compliance must include submittal of standard Title 24 performance documentation to confirm compliance with California standards using software from the California Energy Commission *List of Approved Computer Programs for the 2008 Building Energy Efficiency Standards*.

### **Compliance Guidelines:On-site Renewable Energy**

The methodology used to calculate solar photovoltaic credit shall be the California Energy Commission PV Calculator or an SB 1 compliant calculator. Installation of solar PV systems shall meet all requirements specified in the "Guidelines for California's Solar Electric Incentive Programs Pursuant to Senate Bill 1" available online at <a href="http://www.gosolarcalifornia.ca.gov/nshpcalculator/index.html">http://www.gosolarcalifornia.ca.gov/nshpcalculator/index.html</a>.

## **Compliance Guidelines: Construction Site Runoff Pollution Prevention**

Construction site runoff pollution prevention requirements depend upon project size, occupancy, and location in areas served by combined or separate sewer systems. Projects required to meet a LEED standard (see Attachment A, Table 1) must - at minimum - prepare an erosion and sediment control plan (LEED prerequisite SSp1). However, more stringent local requirements may apply to any project, whether or not LEED is to be applied, such as a stormwater soil loss prevention plan or a Stormwater Pollution Prevention Plan (SWPPP). To confirm the construction site runoff pollution prevention requirements applicable to your project, please contact the SFPUC: www.sfwater.org/CleanBay.

## **Compliance Guidelines: Design for Post-Construction Stormwater Management**

Projects that disturb 5,000 square feet or more of ground surface must meet local stormwater control requirements, which reference the two relevant LEED credits (SS c6.1 and SS c6.2) as applicable. Such projects must submit a stormwater control plan to the San Francisco Public Utilities Commission for approval. The SFPUC has developed San Francisco Stormwater Design Guidelines to aid project teams in meeting local requirements for stormwater controls, which are available online at <a href="http://stormwater.sfwater.org">http://stormwater.sfwater.org</a>.

## **Compliance Guidelines: Water Efficient Irrigation**

Projects that include 1,000 square feet or more of new or modified landscape are subject to the San Francisco Water Efficient Irrigation Ordinance.<sup>2</sup> For details, please see the SFPUC guide, "Complying with San Francisco's Water Efficient Irrigation Requirements," at www.sfwater.org/landscape.

## New Large Commercial Interiors and Major Alterations to Existing Buildings

The application of Sections 13C.5.103.3 or 13C.4.103.3 to Major Alterations to Existing Buildings is based on a determination as to whether a "significant upgrade" is proposed to both the structural system and to one or more of the mechanical, electrical and/or plumbing systems in an area of 25,000 gross square feet or more in a Group B, M or R occupancy. For the purpose of enforcement of Chapter 13C, a significant structural upgrade shall be determined to take place when a structural alteration takes place in thirty percent or more of the area of proposed construction. Areas to be counted toward the thirty percent include areas tributary to the vertical load carrying components (joists, beams, columns, walls and other structural components) that have been or will be removed, added or altered.

The application of Section 13C.5.103.1 to New Large Commercial Interiors requires that the first time tenant improvement work in an area over 25,000 square feet must meet the green building standards detailed in the ordinance. This requirement applies regardless of the date of construction of the building.

## Historic Building Requirements for "Historic Resources" Based on Planning Department Determination

For purposes of applying the specific provisions of Chapter 13C related to historic buildings, the Planning Department shall determine whether a building is an historical resource. This Planning Department review applies a standard based on the California Environmental Quality Act (CEQA) as to whether a structure is or might be considered an "historic resource". Based on such information, the Green Building Compliance Professional of Record shall assure that submittal documents properly reflect the requirements of the Ordinance.

Projects that retain, rehabilitate or repair significant historical architectural features may receive credit toward Green Building requirements, per Attachment A, Table 3.

## Alternate Building Code Applicability Under the California Historical Building Code, Based on Department of Building Inspection Qualification

For buildings that are qualified to use the California Historical Building Code, project sponsors may apply the alternate provisions of that code. Buildings are determined to be qualified to use the California Historical Building Code upon specific request to the Department of Building Inspection. This broader standard differs from the determination of an "historic resource" by the Planning Department; determination that a building qualifies to use the California Historical Building Code does not classify the

<sup>&</sup>lt;sup>2</sup> The San Francisco Water Efficient Irrigation Ordinance is stricter than both the landscape irrigation efficiency measures in California's Green Building Standards (Title 24 Part 11) as well as California's Model Water Efficient Landscape requirements (AB 1881.)

building as an "historic resource." Buildings that qualify to use the California Historical Building Code include buildings that are on federal, state or local adopted lists or surveys, or buildings that are determined by the City to be eligible for such a list or survey, or buildings that have otherwise been determined by the City to be potential historic resources. The Department of Building Inspection coordinates with the Planning Department on the review of such requests for qualification. Alternate code provisions for historic buildings are to be applied on either a case-by-case, item-by-item basis, or, where specifically addressed in the California Historical Building Code, may apply to general provisions or alternatives.

#### **Demolition**

For a replacement building which is to be constructed on a site on which one or more buildings were demolished after the effective date of this ordinance, the Planning Department, during the course of permit review, shall confirm applicable Green Building requirements. Additional Green Building requirements for these projects may be found in Attachment A, Table 2.

### **Requests for Approval of Equivalencies**

Project sponsors wishing to submit alternates or equivalencies for the specific requirements referenced in Chapter 13C or its referenced standards may do so by these methods:

- 1. With project submittal documents or at any later date, provide a specific request to use an alternate or equivalent method of compliance. Each alternative must be separately presented.
- Requests must be accompanied by a complete analysis of the Green Building and other coderelated issues, and must be recommended by and signed by the Green Building Compliance Professional of Record. The analysis must include calculations or other documentation for each specific element of equivalency confirming that the equivalent proposal meets or exceeds the requirements of the Ordinance.
- 3. The Department of Building Inspection staff will review the equivalency and may, at its discretion, request review by other City staff or outside professional persons who are expert in the matter under review. The project sponsor will be responsible for all additional costs incurred for such review, including review time by City staff, charged at the hourly rate as set forth in the San Francisco Building Code, or direct costs for other consultant review.
- 4. The Department of Building Inspection staff may request additional information as part of the review.
- 5. The Department of Building Inspection will issue a decision to approve, deny or require modifications to any submitted alternate or equivalency.
- 6. Project sponsors may appeal any decision to the Deputy Director, Director, and appeal bodies as detailed in the San Francisco Building Code.

### Project Completion: Verification that Green Building Requirements are Met

Verification that green building requirements have been met requires either submittal of Attachment D, Green Building: Final Compliance Verification, or submittal of final certification as meeting LEED or GreenPoint Rated requirements, or both. *Final Compliance Verification is required prior to final inspection.* Attachment D may be filled out in any of the following ways:

- 1. If the project has been submitted for certification under LEED, project shall provide documentation that Green Building Certification Institute has certified the project.
- 2. If the project has been submitted to be GreenPoint Rated, project shall provide documentation that Build It Green has provided a GreenPoint Rated certificate to the project.

- 3. If the project is built to meet LEED or GreenPoint Rated standards but will not be certified, then Attachment D must be signed by the Green Building Compliance Professional of Record.
- 4. If the project is built to meet specific locally required measures, then Attachment D must be signed by the Green Building Compliance Professional of Record.
- 5. If the Director has approved use of an alternate rating system, or documentation of equivalency as approved by the Director. For buildings that propose to meet such alternate standards, then Attachment D must be signed by the Green Building Compliance Professional of Record.

## **Temporary Certificate of Occupancy**

A Temporary Certificate of Occupancy may be issued pending final compliance certification. However, <u>no final Certificate of Completion may be issued until Green Building Final Compliance Verification</u>
(Attachment D of this bulletin) has been received, reviewed and accepted by the Department of Building Inspection.

## **Quality Assurance and Compliance Review**

All projects are subject to comprehensive review by the Department of Building Inspection or its agents; all project sponsors must maintain comprehensive records to allow verification that all requirements have been met; buildings that receive certification through LEED or GreenPoint Rated will generally be accepted as being fully compliant. It is the intent of the Department of Building Inspection to undertake comprehensive review of a significant percentage of green building projects.

## Failure to Comply with Green Building Requirements

Failure to meet all required Green Building requirements will subject a project sponsor to all of the enforcement and abatement remedies detailed in the San Francisco Building Code.

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Vivian L. Day, C.B.O., Director Department of Building Inspection

Date

Attachment A, Table 1, Green Building Ordinance: Summary of Performance Standards and Timelines

Attachment A, Table 2, Additional Requirement if a Building has been Demolished

Attachment A. Table 3. Retention of Significant Historical Architectural Features

Attachment B, Table 1, Specific Local Requirements for projects meeting a LEED standard

Attachment B, Table 2, Specific Local Requirements for projects meeting the GreenPoint Rated standard

Attachment B, Table 3, Specific Local Requirements for all other projects

Attachment C-1, Green Building Submittal - Instructions

Attachment C-2, Green Building Submittal sample – LEED

Attachment C-3, Green Building Submittal sample – GreenPoint Rated

Attachment C-4, Green Building Submittal Sample – Specific locally required measures only

Attachment C, Supplementary Energy Compliance Documentation

Attachment D, Final Compliance Verification

Attachment E, Recommended Project Implementation Procedures

Attachment F, Selected Green Building Resources



# Green Building Ordinance: Summary of Requirements Table 1: Summary of Green Building Requirements

		New Cor	struction	Interiors and Major Alterations			
Building Type	New Large Commercial	All Other New Non-Residential	New High-Rise Residential	All Other New Residential	Large First-Time Commerical Interiors	Major Alterations to Commerical	Major Alterations to Residential
Occupancy and Size	A, B, I, M ≥25,000 sq. ft.	E, F, H, L, S, U any size, or A,B, I, M <25,000 sq. ft.	R 5+ units and ≥ 75' height to highest occupied floor	R 1+ units and < 75' height to highest occupied floor	A, B, I, M ≥ 25,000 sq. ft.	B, M >25,000 sq. ft.	R >25,000 sq. ft.
Code Reference	13C.5.103.1	13C.5.103.2	13C.4.103.2	13C.4.103.1	13C.5.103.4	13C.5.103.3	13C.4.103.3
Recommended Submittal Form Template required to summarize compliance with requirements	"LEED"	"Specific Local Measures Only"	"LEED" or "GPR"	"GPR"	"LEED"	"LEED"	"LEED" or "GPR"
Standard To Be Met	2011: LEED Silver 2012: LEED Gold	None	LEED Silver, or GreenPoint Rated	GreenPoint Rated	2011: LEED Silver 2012: LEED Gold	2011: LEED Silver 2012: LEED Gold	LEED Silver or GreenPoint Rated
Base Number of Points Required Retention of historic features or demolition may adjust points required. See Attachment A, Tables 2 & 3	2011: 50 points 2012: 60 points	-	LEED: 50 points GPR: 75 points	GreenPoint Rated 75 points	2011: 50 points 2012: 60 points	2011: 50 points 2012: 60 points	LEED: 50 points GPR: 75 points
	See Table B1 for addirequirements.	tional specific local r	equirements, includin	g 2010 California Gre	en Building Standards	s Code measures and	stricter local



# **Green Building Ordinance: Summary of Requirements Table 2: Additional Requirements in Case of Demolition**

Attachment A Table 2

For new projects required to attain LEED	Demolished Building IS N	IOT a Historical Resource	Demolished Building IS a Historical Resource		
certification or GreenPoint Rated	LEED GreenPoint Rated		LEED	GreenPoint Rated	
If new density will be less than 3x current density:	Total Required LEED Points Increased by 10%	Obtain 20 additional GreenPoints			
OR: If new density is >3x current density:	Total Required LEED Points Increased by 8%	Obtain 17 additional GreenPoints	Obtain an additional 10% of <b>Total Available</b> LEED Points	Obtain 25 additional GreenPoints	
OR: If new density is >4x current density:	Total Required LEED Points Increased by 6%	Obtain 15 additional GreenPoints			



# Green Building Ordinance: Summary of Requirements Table 3: Retention of Significant Historical Architectural Features

Attachment A Table 3

Significant Historical Architectural Feature	Percent Retained <sup>1</sup>	Reduction in total required LEED points <sup>2</sup>	Reduction in total required GreenPoints <sup>2</sup>
	At least 50%	2	7
Windows on Principal Façade(s)	At least 75%	3	11
	100%	4	15
Other windows	At least 50%	1	3
Other windows	100%	2	6
Exterior doors on principal façade(s)	100%	1	3
Siding or wall finish on principal façade(s)	80%	1	4
Trim & Casing on Wall Openings on Principal Façade(s)	100%	1	3
Roof cornices or decorative eaves visible from right-of-way	100%	1	3
Sub-cornices, belt courses, water tables, and running trim visible from right-of-way	80%	1	3
Character-defining elements of	At least 50%	2	7
significant interior spaces	100%	4	15
Other exterior ornamentation (e.g. cartouches, corbels, quins, etc.) visible from right-of-way	80%	1	3

<sup>&</sup>lt;sup>1</sup> Retention includes the rehabilitation and repair of character-defining features that conform to the Secretary of the Interior's Standards for the Treatment of Historic Properties.

<sup>&</sup>lt;sup>2</sup> As summarized above, these measures are afforded greater weight by the City and County of San Francisco than in the reference green building rating systems. The table is presented as a reduction in local requirements for consistency in cases where projects are both meeting local requirements and seeking LEED certification or to be GreenPoint Rated.

# CONT.

# Green Building Ordinance: Specific Local Requirements Table 1: Requirements for projects meeting a LEED Standard

Attachment B Table 1

This table is a summary, provided for reference. See San Francisco Building Code 13C for details.

		New Large Commercial	New High-Rise Residential	Commerical Interior	Commercial Alteration	Residential Alteration
Locally Required LEED Measures	LEED Credit	Code Reference				
Construction Waste Management – 75% Diversion	LEED MR c2 (2 points)	13C.5.103.1.2	13C.4.103.2.3	Meet C&D ordinance only		
15% Energy Reduction Compared to Title-24 2008 (or ASHRAE 90.1-2007)	LEED EA c1 (3 points)	13C.5.103.1.7	13C.4.201.1.1	(EAp2 N	LEED prerequisite //inimum energy perfo	rmance)
Enhanced Commissioning of Building Energy Systems	LEED EA c3	13C.5.103.1.3			erequisite tal Commissioning)	
Renewable Energy - Effective Jan 1, 2012, permit applicants must either: generate 1% of energy on-site with renewables, OR purchase renewable power, OR achieve an additional 10% beyond Title 24 2008.	LEED EA c2 OR EA c6 OR EA c1	13C.5.103.1.5	-	-	-	-
Indoor Water Efficiency - Reduce overall use of potable water within the building by specified percentage for showerheads, lavatories, kitchen faucets, wash fountains, water closets, and urinals.	LEED WE c3	13C.5.103.1.2 (30% reduction)	13C.4.103.2.2 (30% reduction)		EED WE prerequisite	
Stormwater Control Plan - Projects disturbing >5,000 square feet of ground surface must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines.	LEED SS c6.1/ SS c6.2	13C.5.103.1.6	13C.4.103.2.4	-		orks Code 4.2 vater ordinance)
Construction Site Runoff Pollution Prevention -Provide a construction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices.	LEED SS p1 <sup>1</sup>	13C.5.103.1.6	13C.4.103.2.4.1	-		General Permit and gulations.
Water Efficient Irrigation - Projects that include 1,000 square feet or more of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance.	LEED WE c1	(See "Co	mplying with San Fra www	SF Admin Code 63 incisco's Water Efficie w.sfwater.org/landsca		ments" at
Enhanced Refrigerant Management - Do not install equipment that contains CFCs or Halons	LEED EA c4	13C.5.508.1.2	-	-	-	-
Indoor Air Quality Management During Construction Meet SMACNA Guidelines for Occupied Buildings Under Construction, protect materials from moisture damage, protect return air grills	LEED EQ c3.1	13C.5.103.1.8	-	-	-	-
Low-Emitting Adhesives, Sealants, and Caulks - Adhesives and Sealants meet VOC materials meeting SCAQMD Rule 1168, aerosol adhesives meet Green Seal standard GS-36	LEED EQ c4.1	13C.5.103.1.9	-	13C.5.103.4.2	13C.5.103.3.2	13C.4.103.2.2
Low-Emitting Paints and Coatings - Architectural paints and coatings meet Green Seal GS-11 standard, anti-corrosive paints meet GC-03, and other coatings meet VOC limits of SCAQMD Rule 1113	LEED EQ c4.2	13C.5.103.1.9	-	13C.5.103.4.2	13C.5.103.3.2	13C.4.103.2.2
Low-Emitting Flooring, including Carpet- Hard surface flooring (vinyl, linoleum, laminate, wood, ceramic, and/or rubber must be Resilient Floor Covering Institute (RFCI) FloorScore certified; Carpet must meet Carpet and Rug Institute (CRI) Green Label Plus; Carpet Cushion must meet CRI Green Label; Carpet Adhesive must meet LEED EQc4.1.	LEED EQ c4.3	13C.5.103.1.9	-	13C.5.103.4.2	13C.5.103.3.2	13C.4.103.2.2
<b>Low-Emitting Composite Wood -</b> Composite wood and agrifiber must contain no added urea-formaldehyde resins, and meet applicable CARB Air Toxics Control Measure.	LEED EQ c4.4	13C.5.103.1.9	-	13C.5.103.4.2	13C.5.103.3.2	13C.4.103.2.2
Recycling by Occupants: Provide space for storage, collection, and loading of compost, recycling, AND trash. Exceeds requirements of LEED MR prerequisite 1.	SFBC 106A.3.3 and 13C.5.410.1; (See DBI Administrative Bulletin 088 for details)					
Bicycle parking: Provide short-term and long-term bicycle parking for 5% of total motorized parking capacity each, or meet San Francisco Planning Code Sec 155, whichever is greater.	LEED SSC4.2	13C.5.106.4 and SF Planning				

## Attachment B Table 1 Continued: Requirements for projects meeting a LEED Standard (Sheet 2 of 2)

Other Specific Local Requirements In some cases below, there is no corresponding LEED credit. In ot requirement below may a correspond to a LEED credit which is str provision - in which case the LEED credit is optional. Where a LEE strict, the stricter code-requirement must be met whether or not the achieved.	New Large Commercial	New High-Rise Residential	Commerical Interior	Commercial Alteration	Residential Alteration	
Designated parking: Mark 8% of total parking stalls for low- emitting, fuel efficient, and carpool/van pool vehicles. (13C.5.106.5)	LEED SSc4.3 and SSc4.4 are less strict.	13C.106.5	13C.5.106.5	13C.106.5	-	-
<b>Light pollution reduction:</b> Contain lighting within each source. No more than .01 horizontal footcandles 15 feet beyond site.	LEED SSc8 is more strict.	13C.5.106.8	-	13C.5.106.8	-	-
Water Meters: Provide submeters for spaces projected to consume more than 1,000 gal/day, or more than 100 gal/day if in building over 50,000 sq. ft.	N/A	13C.5.303.1	-	13C.5.303.1	-	-
Air Filtration: Provide at least MERV-8 filters in regularly occupied spaces of mechanically ventilated buildings.	LEED EQc5 is more strict.	13C.5.504.5.3	-	13C.5.504.5.3	-	-
Air Filtration: Provide MERV-13 filters in residential buildings in air-quality hot-spots (or LEED credit IEQ 5).	LEED EQc5 is more strict.	-	SF Health Code Art. 38	-	-	-
Acoustical Control: Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and f oor-ceilings STC 40.	N/A	13C.5.507.4	CBC 1207 applies <sup>2</sup>	13C.5.507.4	-	CBC 1207 applies <sup>2</sup>
<b>Sprinklers.</b> Design and maintain landscape irrigation systems to prevent spray on structures.	N/A	13C.5.407.2.1	-	1	-	1
Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings.	N/A	13C.5.407.2.2 -		-	-	-
Other CALGreen Requirements The following elements of the California Green Building Standards Part 11) are superceded by stricter local requirements, or duplicate as noted. To avoid duplication, no special green building documen	e other state code	New Large Commercial	New High-Rise Residential	Commerical Interior	Commercial Alteration	Residential Alteration
Multiple showerheads serving one shower(13C.5.303.2.1)	N/A		Ch 12 SF Building 303.2 limits shower		ibit more than one s	showerhead per
Wastewater reduction - Reduce generation of wastewater by 20% through installation of water-conserving fixtures (13C.5.303.4)	N/A	Met via the water use efficiency requirements of 13C.5.303.2.				
Outdoor potable water use - Submeter landscaping separately where landscaping covers 1,000-5,000 sq. ft. (over 5,000 sq. ft. already required.)	N/A	Met by compliance with Water Efficient Irrigation Ordinance (SFAC 63)				
Irrigation controllers - Provide weather or soil moisture based controllers that automatically adjust in response to plants' needs as weather conditions change.	N/A	Met by compliance with Water Efficient Irrigation Ordinance (SFAC 63)				
Fireplaces and woodstoves - Install only direct-vent or sealed- combustion appliances; comply with US EPA Phase II limits. (13C.5.503.1)	If permission to install new woodburning fireplaces can be obtained, BAAQMD Regulation 6, Rule 3 applies and is equivalent.					
Environmental tobacco smoke (ETS) control - Prohibits  emoking in buildings, and prohibits outdoor areas provided for		Required by San Francisco Health Code 19F and 19I.				
Moisture control - Comply with California Building Code, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). (13C.5.505.1)	N/A	Comply with cited	code	-	-	-
Carbon dioxide monitoring For buildings with demand control	LEED EQc1 (LEED measure is	Comply with cited code				

<sup>1)</sup> For projects required to meet a LEED standard, all LEED Prerequisites are required. Prerequisites corresponding to a CalGreen requirement are also included above.
2) Residential buildings must meet acoustical requirements of California Building Code Section 1207

## Green Building Ordinance: Specific Local Requirements Table 2: Requirements for projects meeting a GreenPoint Rated standard (Sheet 1 of 1)

Attachment B Table 2

This table is a summary, provided for reference. See San Francisco Building Code 13C for details.

	GreenPoint Single Family Measure Number	GreenPoint Multifamily Measure Number	Requirements for new residential other than high-rise (<75 feet to highest occupied floor and 1 or more units)
Specific Locally Required Measures  Measures that are mandatory in San Francisco but may be different or not required elsev	Code Reference		
Construction Waste Management – 65% Diversion	A. 2.a	A. 2.a	SF Construction and Demolition Debris Diversion Ordinance (Ord. No.27 06)
Recycling by Occupants: Provide space for storage, collection, and loading of compost, recycling, and trash.	May meet M.4.a, and M.4.b	M.3.	SFBC 106A.3.3 (See DBI Administrative Bulletin 088 for details)
15% Energy Reduction Compared to Title-24 2008	J. 2	J. 1.a.	13C.4.201.1.1
Construction Site Runoff Pollution Prevention - Provide a construction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices.	Q. 1.	Q. 1.	13C.4.103.1.2, NPDES Phase II General Permit, and other local regulations.
Stormwater Control Plan - Projects disturbing >5,000 square feet of ground surface must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines.	Depending upon proje	ect design, stormwater	13C.4.103.1.2
Water Efficient Irrigation - Projects that include 1,000 square feet or more of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance.		quirements may ous GPR points.	SF Admin Code 63 (See the guide, Complying with San Francisco's Water Efficient Irrigation Requirements at www.sfwater.org/landscape.)
Additional Required Measures All CALGreen requirements for new residential construction (listed below) have been integrate required.	grated in the GreenPo	int Rated system, and	
Indoor Air Quality Management During Construction -Duct openings and other air distribution component openings must covered during construction.	A. 5.a	A.3.a.	13C.504.1
Smart Irrigation Controller	C. 6.b	B.1.e.ii	13C.304.1
All roofing has 3-year subcontractor warranty and 20-year Manufacturer Warranty	N/A	E. 2.a.	GreenPoint Rated requirement for multifamily
Indoor Water Efficiency - Reduce overall use of potable water within the building by 20% for showerheads, lavatories, kitchen faucets, wash fountains, water closets, and urinals.	G.2-3	G. 1.a.i, G. 1.a.ii (if applicable), G. 1.b.i, G. 1.c, G. 1.d.i, G. 1.d.ii, G. 1.d.iv	13C.4.103.2.2 (20% reduction below UPC/IPC 2006, et al) and 13C.303.2 / SF Housing Code Ch 12 (Prohibits multiple showerheads per valve)
Whole House Fan, with insulated covers or louvers (R-4.2 or greater)	H. 9.b (if applicable)	H.3.b.ii (if applicable)	13C.507.1
Mechanical Ventilation - Comply with ASHRAE 62.2 (as adopted in Title 24 Part 6)	N/A	H. 4.a	GreenPoint Rated / Title 24 Part 6 requirement for multifamily
Bathroom fans - ENERGY STAR and on timer or humidistat	H. 8	H. 4.d.	13C.4.506.1
Low-VOC Interior Wall/Celing Paints (<50 grams per liter VOCs regardless of sheen)	K.2-3	K. 3.a.i and K.3.a.ii	13C.4.504.2.2 through 13C.504.2.4
Low-VOC coatings - Meet SCAQMD Rule 1113	K.2-3	K.3.c.	13C.4.504.2.2 through 13C.504.2.4
Low VOC Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168	K. 4	K.4.	13C.504.2.1
Low-emitting Composite Wood - Meet California Air Resources Board Airborne Toxic Control Measure formaldehyde limits for composite wood	K. 7	K. 6.	13C.4.504.5
Low-emitting flooring: All carpet systems, carpet cushion, carpet adhesive, and at least 50% of resilient flooring must be low-emitting	L.3 and L.4	L.3	13C.504.3 and 13C.4.504.4
Incorporate GreenPoint Rated Checklist in Blueprints	N.1.	N.1.	GreenPoint Rated requirement
Operations and Maintenance Manuals and Training - Provide O&M Manual to Building Maintenance Staff	N. 4.a.	N. 3.a.	13C.4.410.1
Design and Install HVAC System to ACCA Manual J, D, and S	H. 1.a.	H. 1.a.	13C.4.507.2
Surface Drainage: Construction plans shall indicate how the site grading or drainage system will manage surface water flows.	Q. 2	Q. 2	13C.4.106.3
Water Efficiency (Performance Method) - As an alternative to prescriptive compliance, a 20% reduction in baseline water use may be demonstrated through calculation.	Q. 3	Q. 3	13C.4.303.1
Pest Protection - Annular spaces around pipes, electric cables, conduits, or other openings in plates at exterior walls shall be protected against rodents.	Q.4	Q. 4	13C.4.406.1
Fireplaces and woodstoves - Install only direct-vent or sealed-combustion appliances; comply with US EPA Phase II limits.	Q. 5	Q. 5	13C.4.503.1. If permission to install new woodburning fireplaces can be obtained, BAAQMD Regulation 6, Rule 3 applies and is equivalent.
Capillary break for concrete slab on grade -Concrete slab on grade foundations required to have a vapor retarder must also have a capillary break.	Q. 6	Q. 6	13C.4.505.2.1
Moisture content of building materials - Verify wall and floor framing does not exceed 19% moisture content prior to enclosure. Materials with visible signs of moisture damage shall not be installed.		Q. 7	13C.4.505.3
HVAC Installer Qualifications - HVAC system installers must be trained and certified, or under the direct supervision of a person with such training or a contractor licensed to install HVAC systems.	Q. 8	Q.8	13C.702.1



# Green Building Ordinance: Specific Local Requirements Table 3: Requirements All Other New Non-Residential Occupancies (Sheet 1 of 2)

## Attachment B Table 3

This table is a summary, provided for reference. See San Francisco Building Code 13C for details. The following requirements apply to all new non-residential buildings that are not otherwise required to meet a green building standard (E, F, H, L, S, U occupancy of any size, or A, B, I, or M occupancy <25,000 sq. ft.)

Specific Locally Required Measures	Codo Reference			
The following measures are mandatory in San Francisco, but may be different or not required elsewhere	Code Reference			
Construction and demolition debris diversion— Divert ≥ 65% of construction and demolition debris.	SF Construction and Demolition Debris Diversion Ordinance (Ord. No.27-06)			
Recycling by occupants: Provide space for storage, collection, and loading of compost, recycling, and trash.	SFBC 106A.3.3 and other local regulations (See DBI Administrative Bulletin 088 for details)			
15% Energy reduction compared to Title-24 2008	A13C.5.201.1.1			
<b>Construction site runoff pollution prevention</b> -Provide a construction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices.	13C.5.106.1, NPDES Phase II General Permit, and other local regulations.			
Stormwater Control Plan - Projects disturbing >5,000 square feet of ground surface must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines.	SF Public Works Code Article 4.2, Sec. 147			
Water efficient irrigation - Projects that include 1,000 square feet or more of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance.	SF Admin Code 63 (See the guide, Complying with San Francisco's Water Efficient Irrigation Requirements at www.sfwater.org/landscape.)			
Additional Required Measures The following California Green Building Standards Code (Title 24 Part 11) requirements for new construction have be	peen integrated into San Francisco Building Code 13C.			
<b>Bicycle parking -</b> Provide short-term and long-term bicycle parking for 5% of total motorized parking capacity each, or meet San Francisco Planning Code Sec 155, whichever is greater.	13C.5.106.4			
Fuel efficient vehicle and carpool parking -Mark 8% of total parking stalls for low-emitting, fuel efficient, and carpool/van pool vehicles.	13C.5.106.5			
<b>Light pollution reduction</b> - Contain lighting within each source. No more than .01 horizontal footcandles 15 feet beyond site.	13C.5.106.8			
Water meters - Provide submeters for spaces projected to consume more than 1,000 gal/day, or more than 100 gal/day if in building over 50,000 sq. ft.	13C.5.303.1			
Indoor water efficiency - Reduce overall use of potable water within the building by 20% for showerheads, lavatories, kitchen faucets, wash fountains, water closets, and urinals.	13C.5.303.2			
Commissioning - For new buildings greater than 10,000 square feet, commissioning shall be included in the design and construction of the project to verify that the building systems and components meet the owner's project requirements.  OR for buildings less than 10,000 square feet, testing and adjusting of systems is required.	13C.5.410.2 for buildings >10,000 square feet 13C.5.410.4 for buildings ≤ 10,000 square feet			
Ventilation system protection during construction -Protect openings and mechanical equipment from dust and pollutants during construction	13C.5.504.3			
Adhesives, sealants, and caulks- Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives.	13C.5.504.4.1			
Paints and coatings - Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints.	13C.5.504.4.3			
Carpet - All carpet must meet one of the following:  1. Carpet and Rug Institute Green Label Plus Program  2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350)  3. NSF/ANSI 140 at the Gold level  4. Scientific Certifications Systems Sustainable Choice  AND Carpet cushion must meet CRI Green Label,  AND Carpet adhesive must not exceed 50 g/L VOC content.	13C.5.504.4.4			
Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood.	13C.5.504.4.5			
Resilient flooring systems - For 50% of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools (CHPS) criteria or certified under the Resilient Floor Covering Institute (RFCI) FloorScore program.	13C.5.504.4.6			
Air Filtration - Provide at least MERV-8 filters in regularly occupied spaces of mechanically ventilated buildings.	13C.5.504.5.3			
Acoustical control - Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and floor-ceilings STC 40.	13C.5.507.4			
CFCs and halons - Do not install equipment that contains CFCs or Halons.	13C.5.508.1			
Sprinklers - Design and maintain landscape irrigation systems to prevent spray on structures.	13C.5.407.2.1			
Entries and openings - Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings.	13C.5.407.2.2			

## Attachment B Table 3 Continued: Requirements All Other New Non-Residential Occupancies (Sheet 2 of 2)

Other CALGreen Requirements  The following elements of the California Green Building Standards Code (Title 24 Part 11) are superceded by stricter local requirements, or duplicate other state code as noted. To avoid duplication, no special green building documentation is required.					
Multiple showerheads serving one shower(13C.5.303.2.1)	SF Housing Code Ch 12 SF Building Code Ch 13A prohibit more than one showerhead per valve, and 13C.5.303.2 limits showerhead flow rate.				
Wastewater reduction - Reduce generation of wastewater by 20% through installation of water-conserving fixtures	Comply with water efficiency requirements of 13C.5.303.2.				
Outdoor potable water use - Submeter landscaping separately where landscaping covers 1,000-5,000 sq. ft. (over 5,000 sq. ft. already required.)	Comply with Water Efficient Irrigation Ordinance (SFAC 63)				
Irrigation controllers - Provide weather or soil moisture based controllers that automatically adjust in response to plants' needs as weather conditions change.	Comply with Water Efficient Irrigation Ordinance (SFAC 63)				
Fireplaces and woodstoves - Install only direct-vent or sealed-combustion appliances; comply with US EPA Phase II limits.	If permission to install new woodburning fireplaces can be obtained, BAAQMD Regulation 6, Rule 3 applies and is equivalent.				
Environmental tobacco smoke (ETS) control -Prohibits smoking in buildings, and prohibits outdoor areas provided for smoking within 25 feet of building entries, outdoor air intakes and operable windows.	Required by San Francisco Health Code 19F and 19I, as well as 13C.5.504.7				
Moisture control - Comply with California Building Code, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). (13C.5.505.1)	Comply with cited code				
Carbon dioxide monitoring For buildings with demand control ventilation, install carbon dioxide sensors and ventilation controls in accord with California Energy Code. (13C.5.506.2)	Comply with cited code				
Additional Requirements for New A, B, I, OR M Occupancy Projects 5,000 - 25,000 Square Feet (only)					
Construction Waste Management – Divert 75% of construction and demolition debris (i.e. 10% more than required by the San Francisco Construction & Demolition Debris Ordinance)	13C.5.103.2.2				
Renewable Energy - Effective Jan 1, 2012, permit applicants must either: Generate 1% of energy on-site with renewables, OR Purchase renewable power meeting the criteria of LEED Energy and Atmosphere Credit 6, OR Achieve an additional 10% efficiency beyond Title 24 2008.	13C.5.103.2.3				



## **Green Building Submittal - Instructions**

Green Building Submittal Templates are provided in electronic format for your convenience via the Department of Building Inspection website.

## **Locating Documents**

From the Department of Building Inspection website, navigate to Administrative Bulletins. In the entry for AB-093 "Implementation of Green Building Regulations," click "More Info." The "More Info" page contains:

- ‡ This bulletin
- Single page pre-formatted submittal templates
- Electronic version of each element of the submittal template, for optional custom layouts when necessary. (Typically used for smaller-format submittals split into multiple pages for legibility.)
- Spreadsheet with LEED checklists for preparation of submittals.
- DBI does not provide a checklist for GreenPoints projects. A qualified GreenPoint Rater (as specified in the narrative of this bulletin) has the tools necessary to prepare a project-specific GreenPoints checklist for inclusion in submittals. For more information including guidelines and lists of all possible GreenPoints measures please see: www.builditgreen.org.

## Single Page Submittal Templates (Recommended)

Pre-formatted templates are provided for single-sheet submittals applying LEED standards (example Attachment B-2) and GreenPoint Rated (example Attachment B-3). Acquire the appropriate submittal template from the AB-093 "More Info" page, cut & paste a checklist for the appropriate green building standard, and complete the summary of "Requirements" and "Verification" forms.

#### **Optional Custom Layouts**

When necessary, such as cases where submittals must be split into multiple pages to maintain legibility, acquire the separate electronic files containing each element of the submittal template:

- ‡ Checklist for the appropriate green building standard,
- · Summary of "Requirements" form, and
- ‡ "Verification" forms

Prepare the submittal as appropriate. To be complete, a multi-page submittal must include completed versions of each of these three elements.

# **LEED Scorecard** Note: LEED for New Construction and Major Renovation Scorecard shown below. For projects using other Rating Systems (such as Core & Shell, Commercial Interiors, etc.) to comply with San Francisco Grei g Requirements, replace this checklist with the LEED Checklist that applies to your project type. The Committee of the Co

## City and County of San Francisco 2011 Green Building Requirements Summary and Verification Form LEED Rating System option

						-		
REQUIREMENTS								
structions:								
lect the column below that corresponds to your project type. Fill in the blank lines to show that the number of points identified on your LEED devicish meets or exceeds the required number. Check the box each required measure to inclinate that you intend to earn the indicated LEED credits and/or comply with the listed local requirements. For each applicable requirement, use the "Reference" column to indicate the indicated the properties of the properties of the submittal documents compliance with the requirement can be verified. For reference, a brief summary is included for each local requirement that is not quired to be met via a LEED credit. All applicable LEED prerequisites are required.								
ummary of Green Building Requirements:	New Large Commercial	New High-Rise Residential	Commerical Interior	Commercial Alteration	Residential Alteration			
LEED certification level (includes prerequisites):	SILVER	SILVER	SILVER	SILVER	SILVER			
Base number of required Points:	50	50	50	50	50			
Adjustment for retention / demolition of historic features / building:  Final number of required Points (base number +/- adjustment)	_		n/a n/a					
Number of Points on LEED Checklist	_		IIIa					
(Must be greater than requirement): pecific Local Requirements: LEED	New Large	New High-Rise	Commercial	Commercial	Residential	Reference		
(nt indicates a measure is not required)	Commercial	Residential	Interior	Alteration Meet C&D	Alteration	(Indicate Plan Set Sheet & Detail, or Specification, where applicable)		
Construction Waste Management – 75% Diversion LEED MR 2, 2 points				ordinance only				
15% Energy Reduction Compared to Title-24 2008 (or ASHRAE 90.1-2007) LEED EA 1, 3 points				LEED prerequisite only	LEED prerequisite only			
Enhanced Commissioning of Building Energy Systems LEED EA 3		LEED prerequisite only	LEED prerequisite only	LEED prerequisite only	LEED prerequisite only			
Water Use - 30% Reduction LEED WE 3, 2 points			LEED prerequisite	LEED prerequisite	LEED prerequisite			
Water Efficient Irrigation: Projects that include 1,000 square feet or more of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance. (May meet LEED WE 1)			only n/r	May apply includes la	only y if project andscapes			
Construction Site Runoff Pollution Prevention: Provide a con- struction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices. LEED SS prerequisite 1			n/r	May apply extends bey enve	ond building			
Stormwater Control Plan - Projects disturbling >5,000 square feet must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines, including LEED SS 6.1 or 6.2, as applicable			n/r	May apply extends bey enve	and building			
Enhanced Refrigerant Management LEED EA 4		n/r	n/r	n/r	n/r			
Indoor Air Quality Management Plan LEED IEQ 3.1		n/r	n/r	n/r	n/r			
Low-Emitting Materials LEED IEQ 4.1, 4.2, 4.3, and 4.4								
Recycling by Occupants: Provide space for storage, collection, and loading of compost, recycling, and trash. Exceeds requirements of LEED MR prerequisite 1. See Administrative Bulletin 088 for details.								
pecific Local Requirements: Other	New Large Commercial	New High-Rise Residential	Commercial Interior	Commercial Alteration	Residential Alteration	Reference (Indicate Plan Set Sheet & Detail, or Specification, where applicable)		
Bicycle parking: Provide short-term and long-term bicycle parking for 5% of total motorized parking capacity each, or meet San Francisco Planning Code Sec 155, whichever is greater, or meet LEED credit SSc4.2. (13C.5.106.4)				n/r	n/r			
Designated parking: Mark 8% of total parking stalls for low-emitting, fuel efficient, and carpool/van pool vehicles. (13C.5.106.5)				n/r	n/r			
Light pollution reduction: Contain lighting within each source. No more than .01 horizontal footcandles 15 feet beyond site, or meet LEED credit SSc8. (13C.5.106.8)				n/r	n/r			
Water Meters: Provide submeters for spaces projected to consume more than 1,000 gal/day, or more than 100 gal/day if in building over 50,000 sq. ft. (13C.5.303.1)		n/r	n/r	n/r	n/r			
Air Filtration: Provide at least MERV-8 filters in regularly occupied spaces of mechanically ventilated buildings (or LEED credit IEQ 5). (13C.5.504.5.3)		n/r		n/r	n/r			
Air Filtration: Provide MERV-13 filters in residential buildings in air- quality hot-spots (or LEED credit IEQ 5). (SF Health Code Article 38)	n/r		n/r	n/r	n/r			
Acoustical Control: Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and floor-ceilings STC 40. (13C.5.507.4)		see note 1		n/r	n/r			
Notes: 1) Residential buildings must meet acoustical requiremen	its of Cali	fornia Bu	ilding Co	de Section	on 1207			
2) This submittal form is approved for all applicable projects submitting initial application for building permit from January 1, 2011 through Dec. 31, 2011.								
3) Table above is a summary only. See full text of San Francisco Building Code for details.								
4) A GREEN BUILDING SUBMITTAL IS REQUIRED FO	R ALL PI	ERMIT A	PPLICAT	TIONS FO	OR NEW	CONSTRUCTION, FOR ANY OCCUPANCY.		
A GREEN BUILDING SUBMITTAL IS ALSO REQUIR TO B, M, AND R OCCUPANCIES.	ED FOR	ALL PE	RMIT AP	PLICAIT	ONS FO	R MAJOR ALTERATIONS GREATER THAN 25,000 SQUARE FEET		
PERMIT APPLICATIONS THAT DO NOT INCLUDE A GREEN BUILDING SUBMITTAL ARE NOT COMPLETE.								

## **VERIFICATION**

Please indicate how fulfillment of green building requirements will be verified.

A SEPARATE "FINAL COMPLIANCE VERIFICATION" FORM WILL BE REQUIRED
PRIOR TO FINAL INSPECTION. For details, see Administrative Bulletin 93, Page 6.

Project Name

Block/Lot

Address

Primary Occupancy

Gross Building Area

#### Option 1:

Verification of compliance for this project will be provided by USGBC/GBCI certification under the LEED Rating system. No Green Building Compliance Professional of Record is required.

Permit Applicant - Sign & Date

#### OR

#### Option 2:

This project will not be LEED certified. The Green Building Compliance Professional of Record for this project is:

Name

Firm

Architectural or Engineering License

☐ I am a LEED Accredited Professional # of Certified LEED Projects Completed:

To the best of my knowledge, it is my professional opinion the Green Building requirements of the City of San Francisco will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the Green Building requirements of Chapter 13C. I will notify the Department of Building Inspection if I believe to the best of my knowledge that the project will, for any reason, not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date

Affix professional stamp:

## Paste GreenPoint Rated Checklist Here

## **INSTRUCTIONS**

This Green Building template is available for your convenience. The layout of a Green Building Submittal may be adjusted as needed, but the submittal must include:

- Completed REQUIREMENTS section (at right)
- GreenPoints checklist indicating the points that will be achieved and the locations each applicable credit is shown project documents, including plan set page & detail, or specification section name/ number/location. Specifications are not submittal documents, but are subject to review.
- Completed **VERIFICATION** section (at right).

All information must be legible.

The REQUIREMENTS and VERIFICATION sections of this submittal may be downloaded from: www.sfgov.org/dbi.

REQUIREMENTS	
Project Name	
Biock/Lot	
Address	
Primary Occupancy	
# of Dwelling Units	
Height to highest occupied floor	
Summary of Green Building Requirements:	
Rating Requirement:GreenPoints	
GreenPoint Rated (i.e. meets all prerequisites)	
Construction activity stormwater pollution prevention and site runoff controls	
Stormwater Control Plan: Projects distrubing >5,000 square feet must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines	
Water Efficient Irrigation - Projects that include 1,000 square feet or more of new or modified landscape must comply with the SFPUC Water Efficient Irrigation Ordinance.	
VERIFICATION	
Instructions: Please indicate how fullfillment of green building requirements will be verified. A SEPARATE " COMPLIANCE VERIFICATION" FORM WILL BE REQUIRED PRIOR TO FINAL INSPECTI For details, see Administrative Bulletin 93, Page 6.	
SELECT OPTION 1 OR OPTION 2:	
Option 1:	
Verification of compliance for this project will be provided by a GreenPoint Rat GreenPoint Rated system. No Green Building Compliance Professional of Record	
Green Point Rater – Name Contact Phone No:	
Green Point Rater – Sign & Date	
Permit Applicant – Sign & Date	
OR	
Option 2: This project will not be GreenPoint Rated. The Green Building C Professional of Record for this project is:	Compliance
Name	
Firm	
Architectural or Engineering License	
□ I am NOT a Certified GreenPoint Rater GreenPoint Rated Projects Completed:	
If the above licensed professional is not a Certified GreenPoint Rater, additional signature GreenPoint Rater is required:	by a Certified
Green Point Rater – Name (Print) & Contact Phone No	
Sign & Date	
To the best of my knowledge, it is my professional opinion the Green Building requirements of Francisco will be met for the above referenced project. I have been retained by the project spons submittal documents and assure that approved construction documents and construction prop Green Building requirements of Chapter 13C. I will notify the Department of Building Inspection the best of my knowledge that the project will, for any reason, not substantially comply with these requirements, or if I am no longer the Green Building Compliance Professional of Record for this	or to review all erly reflect the n if I believe to green building
Licensed Professional: Sign & Date Affix professional stamp:	

## INDOOR WATER USE COMPLIANCE FORMS

#### PRESCRIPTIVE APPROACH

Each fixture must not exceed the maximum flow rates at 20% reduction in Table 13C.5.303.2.3. All

intures must meet the standards referenced in Table 13C.3.303.0. Tables are summarized below.							
Fixture Type	Maximum Prescriptive Flow Rate	Referenced Standard from Table 13C.5.303.6					
Showerheads <sup>2</sup>	2 gpm @ 80 psi	n/a					
Lavatory faucets - nonresidential	0.4 gpm @ 60 psi	ASMEA112.18.1/CSAB125.1					
Kitchen faucets	1.8 gpm @ 60 psi	n/a					
Wash fountains	1.8 [rim space (in.)/20 gpm @ 60 psi]	n/a					
Metering faucets	.20 gallons/cycle	ASMEA112.18.1/CSAB125.1					
Metering faucets for wash foun- tains	.20 [rim space (in.)/20 gpm @ 60 psi]	n/a					
Tank-type water closets	1.28 gallons/flush¹	U.S. EPA WaterSense Tank-Type High-Efficiency Toilet Specification					
Flushometer valve water closets	1.28 gallons/flush <sup>1</sup>	ASME A112.19.2/CSA B45.1 - 1.28 gal (4.8 L)					
Urinals	0.5 gallons/flush	ASME A112.19.2/CSA B45.1 - 0.5 gal (1.9 L)					
Notes:							

INFORMATION TO THE ADMINISTRATION OF THE ADM

The combined from the ordinary and the combined from the combined

#### PERFORMANCE APPROACH

#### nstructions to applicant:

Fill in all blank cells in both tables below. The number of occupants using each fixture type must b the same in both the Baseline and Design cases. If there are no fixtures of a type in your project, enter "0" for number of occupants. Multiply each row to determine the amount of water used in each fixture type, then sum the last column to determine the total daily water use. Take 80% of this base line case to be the maximum allowable water use (corresponding to the required 20% reduction). The Total Design Case Daily Water Usage use from Worksheet WS-2 must not exceed the Total Allowable Daily Water Usage from Worksheet WS-1.

Worksheet WS-1 (summary) - Baseline & Allowable Water Use									
Fixture Type	Daily use		Occupants <sup>2</sup>		Baseline Flow Rate		Baseline Usage (gallons per day)		
Showerhead	5 min.	х		х	2.5 gpm	=			
Showerhead - residential	8 min.	х		х	2.5 gpm	=			
Lavatory faucets	0.25 min.	х		х	0.5 gpm	=			
Lavatory faucets - residential	0.75 min.	x		x	2.2 gpm	=			
Kitchen faucets	4 min.	х		х	2.2 gpm	=			
Metering faucets	3	х		х	0.25 gal	=			
Water closets (all types)	1 male <sup>1</sup> 3 female	х		х	1.6 gal	=			
Urinals	2 male	х		х	1.0 gal	=			
	Total Baseline Case Daily Usage:								
Total A	Total Allowable Daily Water Usage (Baseline Usage x 80%):								

- The daily use number shall be increased to three if urinals are not installed in the room.
  For non-residential occupancies, refer to table A, Chapter 4, 2010 California Plumbing Code for occupant load fact
- Fixtures and fittings must meet the standards referenced in Table 13C5.303.6, see above
- 1) Table above is a summary only. See full text of San Francisco Building Code for details.

Worksheet WS-2 (summary) - Design Water Use							
Fixture Type	Daily use		Occupants <sup>2</sup>		Design Flow Rate		Design Usage (gallons per day)
Showerhead	5 min.	х		х		=	
Showerhead - residential	8 min.	х		х		=	
Lavatory faucets	0.25 min.	х		х		=	
Lavatory faucets - residential	0.75 min.	х		x		=	
Kitchen faucets	4 min.	х		х		=	
Metering faucets	3	х		х		=	
Water closets (all types)	1 male <sup>1</sup> 3 female	х		х		=	
Urinals	2 male	х		х		=	
Total Design Case Daily Usage:						ge:	

# City and County of San Francisco 2011 Green Building Requirements Summary and Verification Form **Specific Locally Required Measures Only**

## **REQUIREMENTS**

Instructions to applicant:
Check the box by each measure to indicate that you intend to comply with the listed requirement. For each requirement, use the "Plan Set Location" column to indicate where in the submittal documents compliance wi the requirement can be verified. An abbreviated summary of each requirement is included for reference. Projects seeking LEED certification may voluntarily use the "LEED" submittal as an alternative to this form.

Specific Measures Required by San Francisco Building Code Chapter 1	3C	Reference (Indicate Plan Set Sheet & Detail, or Specification, where applicable)
Construction Waste Management – Divert at least 65% of construction and demolition debris by complying with the San Francisco Construction & Demolition Debris Ordinance)		
Recycling by Occupants: Provide space for storage, collection, and loading of recycling, compost and trash. (13C.5.410.1, et al) - See Administrative Bulletin 088 for details.		
Energy Efficiency: Demonstrate a 15% energy use reduction compared to 2008 California Energy Code, Title 24, Part 6. (13C.5.201.1.1)		
Construction Site Runoff Pollution Prevention: Provide a construction site Stormwater Pollution Prevention Plan (13C.5.103.1.6)		
Stormwater Control Plan: Projects disturbing >5,000 square feet must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines. (13C.5.103.1.6)		
Water Efficient Irrigation - Projects that include 1,000 square feet or more of new or modified land- scape must comply with the San Francisco Water Efficient Irrigation Ordinance.		
Bicycle parking: Provide short-term and long-term bicycle parking for 5% of total motorized parking capacity each, or meet San Francisco Planning Code Sec 155, whichever is greater (or LEED credit SSc4.2). (13C.5.106.4)		
Fuel efficient vehicle and carpool parking: Provide stall marking for low-emitting, fuel efficient, and carpool/van pool vehicles; approximately 8% of total spaces. (13C.5.106.5)		
<b>Light pollution reduction:</b> Contain lighting within each source. No more than .01 horizontal footcandles 15 beyond site (or LEED credit SS 8). (13C.5.106.8)		
Water Meters: Provide submeters for spaces projected to consume more than 1,000 gal/day, or more than 100 gal/day if in building over 50,000 sq. ft. (13C.5.303.1)		
Indoor Water Efficiency: Reduce overall use of potable water within the building by 20% for shower-heads, lavatories, kitchen faucets, wash fountains, water closets, and urinals. (13C.5.303.2)		
<b>Commissioning:</b> For new buildings greater than 10,000 square feet, commissioning shall be included in the design and construction of the project to verify that the building systems and components meet the owner's project requirements. (13C.5.410.2)	□ OR	
$\pmb{OR} \text{ for buildings less than 10,000 square feet, testing and adjusting of systems is required. (13C.5.410.4)}$		
Protect duct openings and mechanical equipment during construction (13C.5.504.3)		
Adhesives, sealants, and caulks: Comply with VOC limits in SCAQMD Rule 1168 VOC limits and California Code of Regulations Title 17 for aerosol adhesives. (13C.5.504.4.1)		
Paints and coatings: Comply with VOC limits in the Air Resources Board Architectural Coatings Suggested Control Measure and California Code of Regulations Title 17 for aerosol paints. (13C.5.504.4.3)		
Carpet: All carpet must meet one of the following:  1. Carpet and Rug Institute Green Label Plus Program  2. California Department of Public Health Standard Practice for the testing of VOCs (Specification 01350)  3. NSF/ANSI 140 at the Gold level  4. Scientific Certifications Systems Sustainable Choice  AND Carpet aushion must meet CRI Green Label,  AND Carpet adhesive must not exceed 50 g/L VOC content. (13C.5.504.4.4)		
Composite wood: Meet CARB Air Toxics Control Measure for Composite Wood. (13C.5.504.4.5)		
Resilient flooring systems: For 50% of floor area receiving resilient flooring, install resilient flooring complying with the VOC-emission limits defined in the 2009 Collaborative for High Performance Schools (CHPS) criteria or certified under the Resilient Floor Covering Institute (RFCI) FloorScore program. (13C.5.504.4.6)		
Environmental Tobacco Smoke: Prohibit smoking within 25 feet of building entries, outdoor air intakes, and operable windows. (13C.5.504.7)		
Air Filtration: Provide at least MERV-8 filters in regularly occupied spaces of mechanically ventilated buildings. (13C.5.504.5.3)		
Acoustical Control: Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and floor-ceilings STC 40. (13C.5.507.4)		
CFCs and Halons: Do not install equipment that contains CFCs or Halons. (13C.5.508.1)		
Additional Requirement for New A, B, I, OR M Occupancy Projects 5,000	- 25,0	00 Square Feet
Construction Waste Management – Divert 75% of construction and demolition debris (i.e. 10% more than required by the San Francisco Construction & Demolition Debris Ordinance)		
Notes: 1) This submittal form is approved for all applicable projects submitting initial application fo	r buildir	ng permit from January 1, 2011 through Dec. 31, 2011.

- 2) Table above is a summary only. See full text of San Francisco Building Code for details.
- 3) A GREEN BUILDING SUBMITTAL IS REQUIRED FOR ALL PERMIT APPLICATIONS FOR NEW CONSTRUCTION, FOR ANY OCCUPANCY.

A GREEN BUILDING SUBMITTAL IS ALSO REQUIRED FOR ALL PERMIT APPLICAITONS FOR MAJOR ALTERATIONS GREATER THAN 25,000 SQUARE FEET TO B. M. AND R OCCUPANCIES.

PERMIT APPLICATIONS THAT DO NOT INCLUDE A GREEN BUILDING SUBMITTAL ARE NOT COMPLETE.

## **VERIFICATION**

Gross Building Area

Please indicate how fullfillment of green building requirements will be verified.

A SEPARATE "FINAL COMPLIANCE VERIFICATION" FORM WILL BE REQUIRED PRIOR TO FINAL INSPECTION. For details, see Administrative Bulletin 93, Page 6

The Green Building Compliance Professional of Record for this project is:

Name			
Firm	 	 	

Architectural or Engineering License

☐ I am a LEED Accredited Professional # of Certified LEED Projects Completed:

To the best of my knowledge, it is my professional opinion the Green Building requirements of the City of San Francisco will be met for the above referenced project. I have been retained by the project sponsor to review all submittal documents and assure that approved construction documents and construction properly reflect the Green Building requirements of Chapter 13C. I will notify the Department of Building Inspection if I believe to the best of my knowledge that the project will, for any reason, not substantially comply with these green building requirements, or if I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date

Affix professional stamp:

nsert

Required Measures Submittal Template:

> / Titleblock here Project Name



[from above]

Revised Proposed Design is < Standard Title 24 by (%):

## **Green Building Ordinance:**

## **Supplementary Energy Compliance Documentation**

Attachment
D

<b>Specia</b>	I Energy Com	pliance Fo	rm		PERF-1-0	<u> 3BO</u>

To demonstrate LEED energy equivalence using the 2008 Title 24 performance approach

Project Name/Address:			
Date of T24 Report:			Conditioned Floor Area (SF):
1. Input Data from T	itle PERF-1, Part 2	? of 3	_
Energy	Standard Design	Proposed Design	
Component	(TDV KBtu/sf-yr)	(TDV KBtu/sf-yr)	<u>Instructions</u>
Space Heating			Input Space Heating for every project.
Space Cooling			Input Space Cooling for every project.
Indoor Fans			Input Indoor Fans for every project.
Heat Rejection			Input Heat Rejection if including Mechanical compliance.
Pumps & Misc.			Input Pumps & Misc. if including Mechanical compliance.
DHW			Input DHW if service hot water is modeled for compliance.
Lighting			Input Lighting if including Lighting compliance.
TOTALS:			
CEC PV Calculator which http://www.gosolar			load_calculator.html
Production		Solar PV Credit	
(TDV KWh/yr)	_	(TDV KBtu/sf-yr)	_
	X 3.413		
	(Floor Area)	[used in Step #3]	
TOTAL			Revised
TOTAL Proposed Design			Proposed Design (TDV KBtu/sf-yr)
Proposed Design	] Solor D	V Credit =	(TDV KBtu/si-yi)
[from above]	- 30iai P	v Credit –	
3. Verify LEED Equi	valent Energy Per	<u>rformance</u>	
Revised			
Proposed Design		Standard Design	
(TDV KBtu/sf-yr)	1	(TDV KBtu/sf-yr)	1
	must be 15% <		

Revised 12/28/09

[from above]



# **Green Building: Final Compliance Verification**

Address:
Permit Application Numbers:
☐ Please see attached LEED or GreenPoint Rated final approval/certification, <b>or</b>
☐ As the Green Building Compliance Professional of Record for this project, I verify that, to the best of my knowledge, the above referenced project has been constructed to substantially comply with the green building requirements of the San Francisco building codes.
Mandatory follow-up for this project includes:
<del> </del>
Signed:Date:
Affix professional stamp here:



## Recommended Project Procedures for Green Building Implementation

## Introduction

- 1. Certification by referenced standards is not required but recommended.
- LEED and GreenPoint Rated were selected by the Green Building Task Force for reference in San Francisco Building Code 13C primarily because of their credibility, existing program infrastructure, and verification performed by qualified review bodies.
- 3. For more information: <a href="https://www.usgbc.org">www.builditgreen.org</a>

## **LEED Projects**

- 1. Identify a Project Administrator who is a LEED Accredited Professional (reports to Green Building Compliance Professional of Record)
- 2. Register Project with Green Building Certification Institute
- 3. Develop Responsibility Matrix and assign credits to responsible team member(s)
- 4. Fill out preliminary LEED Checklist
- 5. Detailed design
- 6. Submit Design Credits to Green Building Certification Institute for review
- 7. Construction
- 8. Submit Construction Credits to Green Building Certification Institute for review
- Maintain detailed project records showing that green building requirements have been met

## **GreenPoint Rated Projects**

- Identify Project Administrator who is a Certified GreenPoint Rater (reports to Green Building Compliance Professional)
- 2. Register Project with Build It Green
- 3. As early in design process as possible, work with GreenPoint Rater to fill out GreenPoint Rated Checklist
- 4. Design
- 5. Plan Review Assessment by GreenPoint Rater
- 6. Construction
- 7. Rough Inspection (pre-drywall) by GreenPoint Rater
- 8. Construction
- 9. Final Inspection by GreenPoint Rater
- 10. Maintain detailed project records showing that green building requirements have been met



# **Green Building:**Selected Resources

- SF Dept of Building Inspection www.sfgov.org/dbi
- SF Environment Green Building Program www.sfenvironment.org/greenbuilding/
- US Green Building Council LEED Rating System <u>www.usgbc.org</u> Numerous resources, including Reference Guides to the LEED Rating System(s), find workshops, and register for LEED certification.
  - US Green Building Council Northern California Chapter <u>www.usqbc-ncc.orq</u> Network with local green building professionals.
  - Green Building Certification Institute: <u>www.gbci.org</u> The site to register for the LEED Accreditation Exam. As of Jan 1, 2009, <u>www.gbci.org</u> will assume the duties of processing LEED registrations and certifications.
- Build It Green Learn the GreenPoint Rated System, identify opportunities to network, learn more about green building, obtain the Residential Guidelines referenced by GreenPoint Rated, and identify local Certified GreenPoint Raters – www.builditgreen.org