

***BIC Meeting of
July 18, 2012***

Agenda Item #6



April 17, 2012

Building Inspection Commission
1660 Mission Street
San Francisco, CA 94103

RE: Updated Administrative Bulletin AB-093, Implementation of Green Building Regulations

Honorable Members of the Commission:

At the regular meeting of April 11, 2012 the full Code Advisory Committee (CAC) deliberated on an update to existing Administrative Bulletin AB-093, Implementation of Green Building Standards. On January 1, 2011 the California Building Standards Commission made portions of the California Green Building Standards, CalGreen, mandatory. This updated bulletin clarifies the process necessary to assure compliance with both the mandatory CalGreen Standards and San Francisco's own existing Green Building Ordinance.

The CAC duly forwards a recommendation for approval of this revised and updated bulletin as written to the Building Inspection Commission.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Kirk Means".

Kirk Means
DBI Technical Services Division
Secretary to the Code Advisory Committee

cc: Vivian L. Day, C.B.O., Director
Tom Hui, Deputy Director
David Leung, Manager
Ned Fennie, Jr., Chair, Code Advisory Committee
William Strawn, Legislative Affairs

Attach: AB-093



DEPARTMENT OF BUILDING INSPECTION
City & County of San Francisco
1660 Mission Street, San Francisco, California 94103

ADMINISTRATIVE BULLETIN

NO. AB-093

DATE : Effective January 1, 2011
(Updated April 11, 2012. Supersedes prior versions 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, as well as the application of California Building Code Title 24 Part 11, Division 5.7, effective July 1, 2012.

REFERENCE : 2010 San Francisco Building Code; San Francisco Administrative Bulletin 005: Procedures for Approval of Local Equivalencies, Chapter 13C; California Title 24 Part 11.

DISCUSSION : 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 required measures:¹
 - Table 1: Requirements for projects meeting a LEED standard
 - 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. Each portion of the building must meet the Specific Local Requirements 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.

However, San Francisco Building Code 13C (2008) is applicable to project applications received between November 3, 2008 and January 1, 2011. For details, see the September 4, 2008 version of Administrative Bulletin 93: "Implementation of Green Building Regulations."

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, as summarized in Attachment A, Table 1. Every application for Site Permit subject to these regulations must include a copy of Attachment C-2 ("Green Building: Site Permit Submittal.") Permit applications will not be accepted for processing without this form.

¹ Attachments are provided for reference only. For complete details on any specific requirement, refer to San Francisco Building Code Chapter 13C.

At the time of the first architectural or superstructure addendum, whichever comes first, the submittal for all applicable projects must include a checklist incorporated into the project plans indicating the required green building measures. This checklist must reference, as appropriate, location of green building features in the submittal documents. The Green Building Submittal (Attachment C-3, C-4, or C-5) shall include this checklist, shall 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.

The Green Building Submittal 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 the following ways:

1. 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 Specific Locally Required Measures in effect at the time of permit submittal, as indicated.

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:

- 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 by at least 15% 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 Part 6 submittals, are required.

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

1. Perform the standard 2008 Title 24 Part 6 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. Attachment D, Supplementary Energy Compliance Documentation (PERF-1-GBO) is an example form that may optionally be used to document that the building uses 15% less TDV energy than the standard design after excluding any loads that are not used in calculating compliance.²

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 Part 6 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 Part 6 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 at www.gosolarcalifornia.org.

² The PERF-1-GBO form may be useful for occupancies where the California energy standards do not allow specific systems to be considered in performance-based compliance calculations. In such cases, for fairness, the applicant may optionally calculate the required 15% TDV energy compliance margin based only on the systems that contribute to performance-based code compliance. For example, in multifamily high-rise, residential unit interior lighting power density may also be excluded from the calculation of the additional 15% TDV compliance margin.

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: www.sfwater.org/sdg.

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.³ Details are available online 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.

³ 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.)

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 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 as described in Administrative Bulletin 5, "Procedures for Approval of Local Equivalencies." Note that related state and local requirements continue to apply, including but not limited to California Title 24 Part 11 Green Building Standards Code, SFPUC Stormwater Management Ordinance, and SFPUC Water Efficient Irrigation Ordinance.

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.
2. Requests must be accompanied by a complete analysis of the Green Building and other code-related 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.

Note that San Francisco Building Code 13C (2010) recognized GreenPoint Rated v.2009-11 and all LEED v.2009 rating systems (see 13C.101.10), and allows the application of more recent versions of these rating systems. Therefore new residential projects of 4 stories and greater may utilize LEED for Homes Midrise, LEED BD+C, or GreenPoint Rated without triggering the above process for confirming equivalency. Similarly, major alterations to

residential may use LEED BD&C or GreenPoint Rated to comply with SFBC 13C, provided applicable local requirements are met.

Project Completion: Verification that Green Building Requirements are Met

Verification that green building requirements have been met requires either submittal of Attachment E, Green Building: Final Compliance Verification, or submittal of final certification as meeting LEED or GreenPoint Rated requirements, or both. **Final Compliance Verification documentation is required prior to final inspection.** Attachment E 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 E 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 E 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 E 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, no final Certificate of Completion may be issued until Green Building Final Compliance Verification (Attachment E 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.

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

Date

Approved by the Building Inspection Commission: [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 D, Supplementary Energy Compliance Documentation
Attachment E, Final Compliance Verification
Attachment F, Recommended Project Implementation Procedures
Attachment G, Selected Green Building Resources



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

Attachment A
Table 1

| Building Type | New Construction | | | | | Interiors, Additions, and Alterations | | |
|---|--------------------------------------|---|--|--|------------------------------------|---------------------------------------|--------------------------------------|--|
| | New Large Commercial | All Other New Non-Residential | New High-Rise Residential | All Other New Residential | Major Alterations to Residential | Large First-Time Commercial Interiors | Major Alterations to Commercial | All Other Additions & Alterations to Commercial* |
| 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 | R ≥25,000 sq. ft. | A, B, I, M ≥ 25,000 sq. ft. | B, M ≥25,000 sq. ft. | A, B, I, M, E, F, H, L, S, U ≥2,000 sq ft addition or alteration of ≥\$500,000 value* |
| Code Reference | 13C.5.103.1 | 13C.5.103.2 | 13C.4.103.2 | 13C.4.103.1 | 13C.4.103.3 | 13C.5.103.4 | 13C.5.103.3 | CA Title 24 Part 11, Sec 5.701 |
| Recommended Submittal Form Template required to summarize compliance with requirements | "LEED" | "Specific Local Measures Only" | "LEED" or "GPR" | "GPR" (Projects > 3 occupied floors may use "LEED") | "LEED" or "GPR" | "LEED" | "LEED" | "Specific Local Measures Only" |
| Standard To Be Met | 2011: LEED Silver 2012: LEED Gold | None | LEED Silver, or GreenPoint Rated | GreenPoint Rated (or LEED Silver) | LEED Silver or GreenPoint Rated | 2011: LEED Silver 2012: LEED Gold | 2011: LEED Silver 2012: LEED Gold | None |
| 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 (or LEED Silver) | LEED: 50 points GPR: 75 points | 2011: 50 points 2012: 60 points | 2011: 50 points 2012: 60 points | - |

* CA Title 24 Part 11 (aka CalGreen) Section 5.7 requirements for additions or alterations apply to applications for site permit received on or after July 1, 2012, and are in addition to any requirements that may apply due to SFBC 13C.4.103.3, or 13C.5.103.

See Table B1 for additional specific local requirements, including 2010 California Green Building Standards Code measures and stricter local requirements.



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 certification or GreenPoint Rated | Demolished Building IS NOT a Historical Resource | | Demolished Building IS a Historical Resource | |
|--|--|----------------------------------|---|----------------------------------|
| | LEED | GreenPoint Rated | LEED | GreenPoint Rated |
| If new density will be less than 3x current density: OR: If new density is >3x current density: OR: If new density is >4x current density: | Total Required LEED Points Increased by 10% | Obtain 20 additional GreenPoints | Obtain an additional 10% of Total Available LEED Points | Obtain 25 additional GreenPoints |
| | Total Required LEED Points Increased by 8% | Obtain 17 additional GreenPoints | | |
| | Total Required LEED Points Increased by 6% | Obtain 15 additional GreenPoints | | |



Green Building Ordinance: Summary of Requirements

**Attachment A
Table 3**

Table 3: Retention of Significant Historical Architectural Features

| Significant Historical Architectural Feature | Percent Retained ¹ | Reduction in total required LEED points ² | Reduction in total required GreenPoints ² |
|--|-------------------------------|--|--|
| Windows on Principal Façade(s) | At least 50% | 2 | 7 |
| | At least 75% | 3 | 11 |
| | 100% | 4 | 15 |
| Other windows | At least 50% | 1 | 3 |
| | 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 significant interior spaces | At least 50% | 2 | 7 |
| | 100% | 4 | 15 |
| Other exterior ornamentation (e.g. cartouches, corbels, quins, etc.) visible from right-of-way | 80% | 1 | 3 |

¹ 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.

² 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.



Green Building Ordinance: Specific Local Requirements

Table 1: Requirements for projects meeting a LEED Standard

(Sheet 1 of 2)

**Attachment B
Table 1**

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

| | | New Large Commercial | New Mid Rise Residential ¹ | New High Rise Residential ¹ | Commercial 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 | Meet C&D ordinance only | 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 | 13C.4.201.1.1 | LEED prerequisite (EAp2 Minimum energy performance) | | |
| Enhanced Commissioning of Building Energy Systems | LEED EA c3 | 13C.5.103.1.3 | LEED prerequisite (EAp1.2 Testing & Verification) | LEED prerequisite (EAp1 Fundamental 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) | LEED WE prerequisite ¹ (20% reduction below UPC/IPC 2006, et al) | | |
| 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.4.103.1.2 | 13C.4.103.2.4 | - | SF Public Works Code 4.2 (SFPUC stormwater ordinance) | |
| Construction Site Runoff Pollution Prevention - Provide a construction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices. | LEED SS p1 ¹ | 13C.5.103.1.6 | 13C.4.103.1.2 | 13C.4.103.2.4.1 | - | NPDES Phase II General Permit and other regulations. | |
| Water Efficient Irrigation - Projects with ≥ 1,000 square feet of new or modified landscape must comply with the San Francisco Water Efficient Irrigation Ordinance. | LEED WE c1 | SF Admin Code 63 (See "Complying with San Francisco's Water Efficient Irrigation Requirements" at www.sfwater.org/landscape .) | | | | | |
| 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 |
| Low-Emitting Composite Wood - Composite wood and aggrifiber 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. | LEED MRp1 | 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 Code Sec 155 | SF Planning Code Sec 155 | SF Planning Code Sec 155 | | | |

¹ New residential projects of 75' or greater to the highest occupied floor must use the "New Residential High Rise" column. New residential projects with 4 or more occupied floors which are less than 75 feet to the highest occupied floor may use GreenPoint Rated (see table B2) or the LEED for Homes Mid Rise Rating System (see "New Mid Rise Residential" column in this table.)

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

| Other Specific Local Requirements | | New Large Commercial | New Mid Rise Residential¹ | New High Rise Residential¹ | Commercial Interior | Commercial Alteration | Residential Alteration |
|---|---|--|---|--|----------------------------|------------------------------|-------------------------------|
| In some cases below, there is no corresponding LEED credit. In others, a requirement below may correspond to a LEED credit which is stricter than the code provision - in which case the LEED credit is optional. Where a LEED credit is less strict, the stricter code-requirement must be met whether or not the LEED credit is achieved. | | | | | | | |
| Designated parking: Mark 8% of total parking stalls for low-emitting, fuel efficient, and carpool/van pool vehicles. (13C.5.106.5) | LEED SS4.3 and SS4.4 are less strict. | 13C.5.106.5 | - | - | 13C.5.106.5 | - | - |
| Light pollution reduction: Contain lighting within each source. No more than .01 horizontal footcandles 15 feet beyond site. | LEED SS8 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 buildings ≥ 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 Article 38 and SF Building Code 1203.5 | | - | - | - |
| Acoustical Control: Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and floor-ceilings STC 40. | N/A | 13C.5.507.4 | CBC 1207 applies ³ | | 13C.5.507.4 | - | CBC 1207 applies ³ |
| Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures. | N/A | 13C.5.407.2.1 | LEED prerequisites | - | - | - | - |
| 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 | LEED prerequisite (IDp2.1 and IDp2.2) | - | - | - | - |
| Other CALGreen Requirements | | New Large Commercial | New Mid Rise Residential¹ | New High Rise Residential¹ | Commercial Interior | Commercial Alteration | Residential Alteration |
| The following elements of the California Green Building Standards Code (Title 24 Part 11) are superseded 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) | N/A | 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 (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) | N/A | 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. | LEED EQp2 (equivalent and required) | 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 ventilation, install carbon dioxide sensors and ventilation controls in accord with California Energy Code. (13C.5.506.2) | LEED EQc1 (LEED measure is more strict and not mandatory) | Comply with cited code | | | - | - | - |

¹) New residential projects of 75' or greater to the highest occupied floor must use the "New Residential High Rise" column. New residential projects with 4 or more occupied floors which are less than 75 feet to the highest occupied floor may use GreenPoint Rated (see table B2) or the LEED for Homes Mid Rise Rating System (see "New Mid Rise Residential" column in this table.) LEED for Homes Mid-Rise projects must meet the "Silver" standard, including all prerequisites. The number of points required to achieve Silver depends on unit size. See LEED for Homes Mid-Rise Rating System to confirm the base number of points required.

²) For projects required to meet a LEED standard, all LEED Prerequisites are required. Prerequisites corresponding to a CalGreen requirement are also included above.

³) 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 <75 feet to highest occupied floor and 1 or more units ¹ |
|---|---|---|---|
| Specific Locally Required Measures | | | Code Reference |
| <small>Measures that are mandatory in San Francisco but may be different or not required elsewhere</small> | | | |
| 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 project design, stormwater and irrigation requirements may qualify for various GPR points. | | 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. | | | SF Admin Code 63 (See the guide, <i>Complying with San Francisco's Water Efficient Irrigation Requirements</i> at www.sfwater.org/landscape.) |
| Additional Required Measures | | | |
| <small>All CALGreen requirements for new residential construction (listed below) have been integrated in the GreenPoint Rated system, and are required.</small> | | | |
| Indoor Air Quality Management During Construction - Duct openings and other air distribution component openings must be covered during construction. | A. 5.a | A.3.a. | 13C.4.504.1 |
| Smart Irrigation Controller | C. 6.b | B.1.e.ii | 13C.4.304.1 |
| 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/PC 2006, et al) and 13C.4.303.2 / 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.4.507.1 |
| 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/Ceiling 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.4.504.2.4 |
| Low-VOC coatings - Meet SCAQMD Rule 1113 | K.2-3 | K.3.c. | 13C.4.504.2.2 through 13C.4.504.2.4 |
| Low VOC Caulks, Construction adhesives, and Sealants - Meet SCAQMD Rule 1168 | K. 4 | K.4. | 13C.4.504.2.1 |
| 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.4.504.3 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 | 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.4.702.1 |

¹ GreenPoint Rated is the default standard to be met by new residential projects >75' to the highest occupied floor. However, any new residential building of more than 3 occupied floors may choose to instead apply LEED. In such cases, refer to the requirements summarized in Attachment B Table 1.



Green Building Ordinance: Specific Local Requirements
Table 3: Other New Non-Residential Occupancies, Additions, and Alterations (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 summarizes requirements for 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.), and for non-residential additions of ≥2,000 sq ft or alterations of ≥\$500,000 value required by CBC Part 11 Division 5.7. Applicability of measures to additions and alterations may depend on the presence of the regulated system, as well as additional criteria identified in CBC Part 11 Division 5.7.

| Specific Locally Required Measures The following measures are mandatory in San Francisco, but may be different or not required elsewhere | Other New Non-Residential | Non-Residential Additions & Alterations¹ |
|---|---|--|
| 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 | 13C.5.201.1.1 | N/A |
| Construction site runoff pollution prevention - Provide a construction site Stormwater Pollution Prevention Plan and implement SFPUC Best Management Practices. | 13C.5.106.1 or CBC Part 11 Section 5.710.6, as well as 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, <i>Complying with San Francisco's Water Efficient Irrigation Requirements</i> at www.sfwater.org/landscape .) | |
| Additional Required Measures The following California Green Building Standards Code (Title 24 Part 11) requirements for new construction have been integrated into San Francisco Building Code 13C. | | |
| 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. | 13C.5.106.4 | CBC Part 11 Section 5.710.6.2 - If 10 more more parking stalls are added |
| 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 | CBC Part 11 Section 5.710.6.3 - If 10 more more parking stalls are |
| Light pollution reduction - Contain lighting within each source. No more than .01 horizontal footcandles 15 feet beyond site. | 13C.5.106.8 | N/A |
| 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 | CBC Part 11 Section 5.712.3.1 |
| 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 | CBC Part 11 Section 5.712.3.1. See also SFBC 13A Commercial Water Conservation Requirements. |
| 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 | CBC Part 11 Section 5.713.10.4 |
| Ventilation system protection during construction - Protect openings and mechanical equipment from dust and pollutants during construction | 13C.5.504.3 | CBC Part 11 Section 5.714.4.1 |
| 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 | CBC Part 11 Section 5.714.4.4.1 |
| 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 | CBC Part 11 Section 5.714.4.4.3 |
| 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 | CBC Part 11 Section 5.714.4.4.4 |
| Composite wood - Meet CARB Air Toxics Control Measure for Composite Wood. | 13C.5.504.4.5 | CBC Part 11 Section 5.714.4.4.5 |
| 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 | CBC Part 11 Section 5.714.4.4.6 |
| Air Filtration - Provide at least MERV-8 filters in regularly occupied spaces of mechanically ventilated buildings. | 13C.5.504.5.3 | CBC Part 11 Section 5.714.4.5.3 |
| Acoustical control - Wall and roof-ceilings STC 50, exterior windows STC 30, party walls and floor-ceilings STC 40. | 13C.5.507.4 | CBC Part 11 Section 5.714.7.1 |
| CFCs and halons - Do not install equipment that contains CFCs or Halons. | 13C.5.508.1 | CBC Part 11 Section 5.714.8.1 |
| Sprinklers - Design and maintain landscape irrigation systems to prevent spray on structures. | 13C.5.407.2.1 | CBC Part 11 Section 5.713.7.2.1 |
| 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 | CBC Part 11 Section 5.713.7.2.2 |

¹⁾ Requirements for additions or alterations apply to applications received on or after July 1, 2012.

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. | Other New Non-Residential | Non-Residential Additions & Alterations¹ |
|---|---|--|
| 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. or CBC Part 11 Section 5.712.3.2 | |
| 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 | N/A |
| 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 | N/A |

1) Requirements for additions or alterations apply to applications received on or after July 1, 2012.



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 that may optionally be used to prepare LEED submittals. (You may use your own LEED checklist file.)
- 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 submittals. For more information – including guidelines and a list of all GreenPoint measures - please see: www.builditgreen.org.

New in 2012 - Green Building: Site Permit Submittal

When applying for a Site Permit, use Attachment C-2: Green Building Site Permit Submittal. A LEED or GreenPoint checklist is not required at Site Permit, but will be required with the superstructure addendum.

Single Page Submittal Templates (Recommended)

Pre-formatted templates are provided for single-sheet submittals applying LEED (example Attachment C-3) and GreenPoint Rated (example Attachment C-4). 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.

Green Building: Site Permit Checklist

BASIC INFORMATION: These facts, plus the primary occupancy, determine which requirements apply. For details, see AB 093 Attachment A Table 1.

| | | |
|---------------------|----------------------------------|---|
| Project Name | Block/Lot | Address |
| Green Building Area | Primary Occupancy | Design Professional/Applicant Sign & Date |
| # of Dwelling Units | Height to highest occupied floor | Number of occupied floors |

Instructions:

As part of application for site permit, this form acknowledges the specific green building requirements that apply to a project under San Francisco Building Code Chapter 13C, California Title 24 Part 11, and related local codes. Attachment C3, C4, or C5 will be due with the applicable addendum. To use the form:

(a) Provide basic information about the project in the box at left. This info determines which green building requirements apply.

AND

(b) Indicate in one of the columns below which type of project is proposed. If applicable, fill in the blank lines below to identify the number of points the project must meet or exceed. A LEED or GreenPoint checklist is not required to be submitted with the site permit application, but such tools are strongly recommended to be used.

Solid circles in the column indicate mandatory measures required by state and local codes. For projects applying LEED or GreenPoint Rated, prerequisites of those systems are mandatory. This form is a summary; see San Francisco Building Code Chapter 13C for details.

| ALL PROJECTS, AS APPLICABLE | LEED PROJECTS | | | | |
|---|--|--------------------------|--------|--------|--------|
| | New Large Commercial | New Residential Mid-Rise | SILVER | SILVER | SILVER |
| Construction activity stormwater pollution prevention plan (SPPUC) - Provide a construction site SPPUC Pollution Prevention Plan and implement SPPUC Best Management Practices. | | | | | |
| Stormwater Control Plan: Projects disturbing 2-2,000 square feet must implement a Stormwater Control Plan meeting SPPUC Stormwater Design Guidelines. | | | | | |
| Water Efficient Irrigation - Projects that include ≥ 1,000 square feet of new or modified landscape must comply with the SPPUC Water Efficient Irrigation Ordinance. | | | | | |
| Construction Waste Management - Divert at least 65% of construction and demolition debris by complying with the San Francisco Construction & Demolition Debris Ordinance. | | | | | |
| Overall Requirements: | | | | | |
| 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: | | n/a | | | |
| Final number of required points (base number +/- adjustment) | | | 50 | | |
| Specific Requirements: (n/r indicates a measure is not required) | | | | | |
| Construction Waste Management - 75% Diversion LEED MR 2.2 points | ● | ● | ● | ● | ● |
| 15% Energy Reduction Compared to Title-24 2008 (or ASHRAE 90.1-2007) LEED EA 1, 3 points | ● | ● | ● | ● | ● |
| Renewable Energy or Enhanced Energy Efficiency Effective 7/1/2017: 10% energy on-site ≥ 1% of total annual energy cost (LEED EA2); OR Demonstrate an additional 10% energy use reduction (total of 25% compared to Title 24 Part 6 2008), OR Demonstrate an additional 10% renewable energy credits for 25% of total electricity use (LEED EA8) | ● | n/r | n/r | n/r | n/r |
| Enhanced Commissioning of Building Energy Systems LEED EA 3 | ● | ● | ● | ● | ● |
| Water Use - 30% Reduction LEED WE 3, 2 points | ● | ● | ● | ● | ● |
| Enhanced Refrigerant Management LEED EA 4 | ● | ● | ● | ● | ● |
| Indoor Air Quality Management Plan LEED IEQ 3.1 | ● | ● | ● | ● | ● |
| Low-Emitting Materials LEED IEQ 4.1, 4.2, 4.3, and 4.4 | ● | ● | ● | ● | ● |
| Recycling by Occupants: Provide space for storage, recycling, compost and trash (LEED O&M 1.1) and requirements of LEED MR prerequisites 1, 84 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, or meet LEED credit SS4.2. (13C-5.106.4) | ● | ● | ● | ● | ● |
| Designated parking: Mark 8% of total parking stalls for low-ventilation, fuel efficient, and carpoolvan pool vehicles. (13C-5.106.5) | ● | ● | ● | ● | ● |
| Water Meters: Provide submeters for spaces projected for building over 80,000 sq. ft. (13C-5.503.1) | ● | ● | ● | ● | ● |
| Air Filtration: Provide at least MERV13 filters in regularly occupied buildings in compliance with LEED EQ 5.1, (SF Planning Code Article 38 and SF Building Code 1203.5) | ● | ● | ● | ● | ● |
| Acoustical Control: Wall and roof-ceiling STC 50, exterior windows STC 60, exterior windows STC 30, party walls and floor-ceiling STC 40. (13C-5.507.4) | ● | ● | ● | ● | ● |
| GreenPoint Rated (i.e. meets all prerequisites) | ● | ● | ● | ● | ● |
| Energy Efficiency: Demonstrate a 15% energy use reduction compared to 2008 California Energy Code, Title 24, Part 6. | ● | ● | ● | ● | ● |
| Meet all California Green Building Standards Code requirements (CalGreen measures for residential projects have been integrated into the GreenPoint Rated system.) | ● | ● | ● | ● | ● |
| Notes | <p>1) New residential projects of 75' or greater must use the 'New Residential' column and projects of 75' or less must use the 'New Residential' column and apply the LEED for Homes Mid-Rise rating system; if so, you must use the 'New Residential Mid-Rise' column.</p> <p>2) LEED for Homes Mid-Rise projects must meet the 'Silver' standard, including all prerequisites. The number of points required to achieve Silver depends on unit size. See LEED for Homes Mid-Rise Rating System for details.</p> <p>3) Some other measures for residential projects are not included in this form but the same number of points required to achieve LEED for Homes Mid-Rise Rating System apply to applications received on or after July 1, 2012.</p> | | | | |

OTHER APPLICABLE NON-RESIDENTIAL PROJECTS

Requirements below only apply when the measure is applicable to the project. Code references below are applicable to New Non-Residential buildings. Corresponding references for existing buildings are provided in the table below. Requirements for additional alterations apply to applications received July 1, 2012 or after.

| Type of Project Proposed (Check box if applicable) | Other New Non-Residential | Addition >2,000 sq ft OR Alteration >\$500,000* |
|--|---------------------------|---|
| Recycling by Occupants: Provide space for storage, collection, and leading 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, 1.3) | ● | n/r |
| 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 SS4.2. (13C-5.106.4) | ● | ● |
| Fuel efficient vehicle and carpool parking: Provide stall marking for carpooling, fuel efficient, and carpoolvan pool vehicles, approximately 8% of total spaces. (13C-5.106.5) | ● | ● |
| Water Meters: Provide submeters for spaces projected to consume ≥ 1,000 galloway, or >100 galloway in buildings over 50,000 sq. ft. | ● | ● |
| Indoor Water Efficiency: Reduce overall use of potable water within the building by 20% for showers, lavatories, kitchen faucets, wash basins, 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 OR for buildings less than 10,000 square feet, testing and adjusting of systems is required. (13C-5.504.3) | ● | ● |
| Protect duct openings and mechanical equipment during construction | ● | ● |
| Adhesives, sealants, and caulks: Comply with VOC limits in SCAQMD Rule 1168 VOC limit 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. (13C-5.504.4.2) | ● | ● |
| 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 (SPPUC 13C-5.504.4.3) 3. NSF/ANSI 140 Gold level 4. Scientific Certification 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 Screening Initiative (RFSI) Resilient Floor Program. (13C-5.504.4.6) | ● | ● |
| Environmentally Tobacco Smoke: Prohibit entry within 25 feet of building entrances at all times, and prohibit smoking. (13C-5.504.4.7) | ● | ● |
| Air Filtration: Provide at least MERV13 filters in regularly occupied spaces of mechanically ventilated buildings. (13C-5.503.1) | ● | ● |
| Acoustical Control: Wall and roof-ceiling STC 50, exterior windows STC 30, party walls and floor-ceiling STC 40. (13C-5.507.4) | ● | ● |
| CFCs and Halons: Do not install equipment that contains CFCs or Halons. (13C-5.508.1) | ● | ● |
| Additional Requirements for New A, B, 1, OR M Occupancy Projects 5,000 - 25,000 Square Feet | ● | ● |
| Construction Waste Management - Divert 75% of construction and demolition debris (13C-5.507.4) | ● | ● |
| Renewable Energy or Enhanced Energy Efficiency Effective January 1, 2012: Generate renewable energy on-site equal to ≥ 1% of total annual energy cost (LEED EA2), OR Demonstrate an additional 10% energy use reduction (total of 25% compared to Title 24 Part 6 2008), OR Demonstrate an additional 10% renewable energy credits for 25% of total electricity use (LEED EA8). | ● | n/r |

Attachment C-2 - Green Building Site Permit Submittal

Insert Project Name / Titleblock here

City and County of San Francisco Green Building Submittal: GreenPoint Rated

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
 New residential projects with >3 occupied floors that choose to apply LEED should use the "LEED" submittal form.

REQUIREMENTS

Project Name _____
 Block/lot _____
 Address _____
 Primary Occupancy _____
 # of Dwelling Units _____
 Height to highest occupied floor _____

| Summary of Green Building Requirements: | |
|--|--------------------------|
| Rating Requirement: Number of GreenPoints required (includes prerequisites) | |
| Adjustment for retention / demolition of historic features / building | |
| Final number of required points (base number +/- adjustment) | |
| Construction activity stormwater pollution prevention and site runoff controls | <input type="checkbox"/> |
| Stormwater Control Plans: Projects disturbing ≥ 5,000 square feet must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines | <input type="checkbox"/> |
| Water Efficient Irrigation - Projects that include ≥ 1,000 square feet of new or modified landscape must comply with the SFPUC Water Efficient Irrigation Ordinance. | <input type="checkbox"/> |
| Meet all California Green Building Standards Code requirements (CalGreen measures for residential projects have been integrated into the GreenPoint Rated system). | <input type="checkbox"/> |

VERIFICATION

Instructions:
 Please indicate how fulfillment of green building requirements will be verified. A separate **FINAL COMPLIANCE VERIFICATION** form will be required prior to final Certificate of Completion. For details, see Administrative Bulletin 10, Page 6.

SELECT OPTION 1 OR OPTION 2:

Option 1:
 Verification of compliance for this project will be provided by a GreenPoint Rated under the GreenPoint Rated system. No Green Building Compliance Professional of Record is required.

Green Point Rated - Name _____ Contact Phone No: _____
 Green Point Rated - Sign & Date _____
 Permit Applicant - Sign & Date _____

OR

Option 2:
 Verification of compliance will be provided by the Green Building Compliance Professional of Record:

Name _____
 Firm _____
 Architectural or Engineering License
 I am a Certified GreenPoint Rated
 I am NOT a Certified GreenPoint Rated
 GreenPoint Rated Projects Completed: _____
 If the above licensed professional is not a Certified GreenPoint Rated, additional signature by a Certified GreenPoint Rated is required:
 Green Point Rated - Name (Print) & Contact Phone No _____
 Sign & Date _____

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 submittal documents and assure that approved construction documents and construction properly reflect the requirements of the Green Building Ordinance. I have read and understand the Green Building Ordinance and the best of my knowledge that the project will be in compliance with the Green Building Ordinance requirements, or I am no longer the Green Building Compliance Professional of Record for this project.

Licensed Professional: Sign & Date _____
 Affix professional stamp:

Attachment C-4:
 Submittal Template
 for GreenPoint Rated
 Version: April 11, 2012

Insert Project Name / Titleblock here

INDOOR WATER USE COMPLIANCE FORMS

PRESCRIPTIVE APPROACH

For all flush toilets, effective flush volume is defined as the average volume of two reduced flushes and one full flush. For all other fixtures, effective flush volume is defined as the average volume of two reduced flushes and one full flush. For all showers, effective flush volume is defined as the average volume of two reduced flushes and one full flush. For all showers, effective flush volume is defined as the average volume of two reduced flushes and one full flush. For all showers, effective flush volume is defined as the average volume of two reduced flushes and one full flush.

| Fixture Type | Maximum Prescriptive Flow Rate | Referenced Standard from Table 13C.5.503.6 |
|------------------------------------|-------------------------------------|---|
| Showerheads | 2.0 gpm @ 80 psi | n/a |
| Lavatory faucets - non-residential | 0.4 gpm @ 60 psi | ASME A112.18.1 (CSA/B21) |
| Kitchen faucets | 1.8 gpm @ 60 psi | n/a |
| Wash basins | 1.8 lpm space (in 200 gpm @ 60 psi) | n/a |
| Metering faucets | .20 gallons/cycle | ASME A112.18.1 (CSA/B21) |
| Metering faucets for wash basins | 20 lpm space (in 200 gpm @ 60 psi) | n/a |
| Tank-type water closets | 1.28 gallons/flush | 1.5, 65% Water-Close, 1.28 gpm High-Efficiency Toilet Specification |
| Flushometer valve water closets | 1.28 gallons/flush | ASME A112.19.2 (CSA B45.1) |
| Urinals | 0.5 gallons/flush | ASME A112.19.2 (CSA B45.1) |

Notes:
 1) For dual flush toilets, effective flush volume is defined as the average volume of two reduced flushes and one full flush.
 2) For all showers, effective flush volume is defined as the average volume of two reduced flushes and one full flush.
 3) For all showers, effective flush volume is defined as the average volume of two reduced flushes and one full flush.
 4) Table above is a summary only. See full text of San Francisco Building Code for details.

PERFORMANCE APPROACH

Instructions to applicant:
 The number of occupants in any given fixture type must be the same in both the Baseline and Design. The number of occupants in any given fixture type must be the same in both the Baseline and Design. The number of occupants in any given fixture type must be the same in both the Baseline and Design. The number of occupants in any given fixture type must be the same in both the Baseline and Design.

| Fixture Type | Daily Use | Occupants | Baseline Water Use (gallons per day) | Design Water Use (gallons per day) |
|--|--------------------|-----------|--------------------------------------|------------------------------------|
| Showerhead | 5 min. | x | 2.5 gpm | |
| Lavatory faucet - residential | 8 min. | x | 2.5 gpm | |
| Lavatory faucet - non-residential | 0.25 min. | x | 0.5 gpm | |
| Lavatory faucet - kitchen | 0.75 min. | x | 2.2 gpm | |
| Lavatory faucet - metering | 4 min. | x | 0.25 gal | |
| Water closets (all types) | 1 male 3 female | x | 1.6 gal | |
| Urinals | 2 male | x | 1.0 gal | |
| Total Allowable Daily Water Usage (Baseline Usage x 80%) | | | | |

Notes:
 1) The daily use number shall be increased to three if urinals are not installed in the room.
 2) For non-residential occupancies, use ASHRAE Chapter 9, 2010 terms Plumbing Code for occupant load factors.
 3) For residential occupancies, use ASHRAE Chapter 9, 2010 terms Plumbing Code for occupant load factors.
 4) 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 | Design Flow Rate | Design Usage (gallons per day) |
|-----------------------------------|--------------------|-----------|------------------|--------------------------------|
| Showerhead | 5 min. | x | | |
| Showerhead - residential | 8 min. | x | | |
| Lavatory faucet - residential | 0.25 min. | x | | |
| Lavatory faucet - non-residential | 0.75 min. | x | | |
| Lavatory faucet - kitchen | 4 min. | x | | |
| Lavatory faucet - metering | 3 min. | x | | |
| Water closets (all types) | 3 male 1 female | x | | |
| Urinals | 2 male | x | | |
| Total Design Case Daily Usage: | | | | |

Notes:
 1) The daily use number shall be increased to three if urinals are not installed in the room.
 2) For non-residential occupancies, use ASHRAE Chapter 9, 2010 terms Plumbing Code for occupant load factors.
 3) For residential occupancies, use ASHRAE Chapter 9, 2010 terms Plumbing Code for occupant load factors.
 4) Table above is a summary only. See full text of San Francisco Building Code for details.

City and County of San Francisco Green Building Submittal: Specific Locally Required Measures Only

REQUIREMENTS

Instructions to applicant:
 The applicant is to indicate in this column to comply with the table requirements. For each requirement, use the "Pin Set Location" column to indicate where in the submittal documents compliance with the requirement must be indicated. If items in the "Reference" column are not applicable, indicate "N/A".
 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.

| Required Measures | Reference (Indicate Pin Set Sheet Path or Specifications, where applicable) | Other New Non-Residential | Addition >2,000 sq ft OR Alteration >\$500,000* |
|---|---|---------------------------|---|
| Construction Waste Management - Divert at least 65% of construction and demolition items by complying with the San Francisco Construction & Demolition Debris Ordinance. | | • | • |
| Recycling by Occupants - Provide space for storage, collection, and loading of recycling, compost and other materials. (13C.5.410.1, 13C.5.410.2, 13C.5.410.3, 13C.5.410.4, 13C.5.410.5, 13C.5.410.6, 13C.5.410.7, 13C.5.410.8, 13C.5.410.9, 13C.5.410.10, 13C.5.410.11, 13C.5.410.12, 13C.5.410.13, 13C.5.410.14, 13C.5.410.15, 13C.5.410.16, 13C.5.410.17, 13C.5.410.18, 13C.5.410.19, 13C.5.410.20, 13C.5.410.21, 13C.5.410.22, 13C.5.410.23, 13C.5.410.24, 13C.5.410.25, 13C.5.410.26, 13C.5.410.27, 13C.5.410.28, 13C.5.410.29, 13C.5.410.30, 13C.5.410.31, 13C.5.410.32, 13C.5.410.33, 13C.5.410.34, 13C.5.410.35, 13C.5.410.36, 13C.5.410.37, 13C.5.410.38, 13C.5.410.39, 13C.5.410.40, 13C.5.410.41, 13C.5.410.42, 13C.5.410.43, 13C.5.410.44, 13C.5.410.45, 13C.5.410.46, 13C.5.410.47, 13C.5.410.48, 13C.5.410.49, 13C.5.410.50, 13C.5.410.51, 13C.5.410.52, 13C.5.410.53, 13C.5.410.54, 13C.5.410.55, 13C.5.410.56, 13C.5.410.57, 13C.5.410.58, 13C.5.410.59, 13C.5.410.60, 13C.5.410.61, 13C.5.410.62, 13C.5.410.63, 13C.5.410.64, 13C.5.410.65, 13C.5.410.66, 13C.5.410.67, 13C.5.410.68, 13C.5.410.69, 13C.5.410.70, 13C.5.410.71, 13C.5.410.72, 13C.5.410.73, 13C.5.410.74, 13C.5.410.75, 13C.5.410.76, 13C.5.410.77, 13C.5.410.78, 13C.5.410.79, 13C.5.410.80, 13C.5.410.81, 13C.5.410.82, 13C.5.410.83, 13C.5.410.84, 13C.5.410.85, 13C.5.410.86, 13C.5.410.87, 13C.5.410.88, 13C.5.410.89, 13C.5.410.90, 13C.5.410.91, 13C.5.410.92, 13C.5.410.93, 13C.5.410.94, 13C.5.410.95, 13C.5.410.96, 13C.5.410.97, 13C.5.410.98, 13C.5.410.99, 13C.5.410.100) | • | • | |
| Construction Site Runoff Pollution Prevention - Provide a construction site Stormwater Pollution Prevention Plan (13C.5.103.1-103.10) | | • | • |
| Stormwater Control Plan - Projects with 1.5-2.0 million sq ft must implement a Stormwater Control Plan meeting SFPUC Stormwater Design Guidelines. (13C.5.103.1-103.10) | | • | • |
| Water Efficient Irrigation - Projects that include a 1,000 square feet of new or modified landscape 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 spaces (13C.5.104.1, 13C.5.104.2, 13C.5.104.3, 13C.5.104.4, 13C.5.104.5, 13C.5.104.6, 13C.5.104.7, 13C.5.104.8, 13C.5.104.9, 13C.5.104.10, 13C.5.104.11, 13C.5.104.12, 13C.5.104.13, 13C.5.104.14, 13C.5.104.15, 13C.5.104.16, 13C.5.104.17, 13C.5.104.18, 13C.5.104.19, 13C.5.104.20, 13C.5.104.21, 13C.5.104.22, 13C.5.104.23, 13C.5.104.24, 13C.5.104.25, 13C.5.104.26, 13C.5.104.27, 13C.5.104.28, 13C.5.104.29, 13C.5.104.30, 13C.5.104.31, 13C.5.104.32, 13C.5.104.33, 13C.5.104.34, 13C.5.104.35, 13C.5.104.36, 13C.5.104.37, 13C.5.104.38, 13C.5.104.39, 13C.5.104.40, 13C.5.104.41, 13C.5.104.42, 13C.5.104.43, 13C.5.104.44, 13C.5.104.45, 13C.5.104.46, 13C.5.104.47, 13C.5.104.48, 13C.5.104.49, 13C.5.104.50, 13C.5.104.51, 13C.5.104.52, 13C.5.104.53, 13C.5.104.54, 13C.5.104.55, 13C.5.104.56, 13C.5.104.57, 13C.5.104.58, 13C.5.104.59, 13C.5.104.60, 13C.5.104.61, 13C.5.104.62, 13C.5.104.63, 13C.5.104.64, 13C.5.104.65, 13C.5.104.66, 13C.5.104.67, 13C.5.104.68, 13C.5.104.69, 13C.5.104.70, 13C.5.104.71, 13C.5.104.72, 13C.5.104.73, 13C.5.104.74, 13C.5.104.75, 13C.5.104.76, 13C.5.104.77, 13C.5.104.78, 13C.5.104.79, 13C.5.104.80, 13C.5.104.81, 13C.5.104.82, 13C.5.104.83, 13C.5.104.84, 13C.5.104.85, 13C.5.104.86, 13C.5.104.87, 13C.5.104.88, 13C.5.104.89, 13C.5.104.90, 13C.5.104.91, 13C.5.104.92, 13C.5.104.93, 13C.5.104.94, 13C.5.104.95, 13C.5.104.96, 13C.5.104.97, 13C.5.104.98, 13C.5.104.99, 13C.5.104.100) | • | • | |
| Fuel efficient vehicle and carpool parking - Provide stall markings for two-wheeled, fuel efficient, and carpooling vehicle spaces, approximately 6% of total spaces. (13C.5.104.5, 13C.5.104.6, 13C.5.104.7, 13C.5.104.8, 13C.5.104.9, 13C.5.104.10, 13C.5.104.11, 13C.5.104.12, 13C.5.104.13, 13C.5.104.14, 13C.5.104.15, 13C.5.104.16, 13C.5.104.17, 13C.5.104.18, 13C.5.104.19, 13C.5.104.20, 13C.5.104.21, 13C.5.104.22, 13C.5.104.23, 13C.5.104.24, 13C.5.104.25, 13C.5.104.26, 13C.5.104.27, 13C.5.104.28, 13C.5.104.29, 13C.5.104.30, 13C.5.104.31, 13C.5.104.32, 13C.5.104.33, 13C.5.104.34, 13C.5.104.35, 13C.5.104.36, 13C.5.104.37, 13C.5.104.38, 13C.5.104.39, 13C.5.104.40, 13C.5.104.41, 13C.5.104.42, 13C.5.104.43, 13C.5.104.44, 13C.5.104.45, 13C.5.104.46, 13C.5.104.47, 13C.5.104.48, 13C.5.104.49, 13C.5.104.50, 13C.5.104.51, 13C.5.104.52, 13C.5.104.53, 13C.5.104.54, 13C.5.104.55, 13C.5.104.56, 13C.5.104.57, 13C.5.104.58, 13C.5.104.59, 13C.5.104.60, 13C.5.104.61, 13C.5.104.62, 13C.5.104.63, 13C.5.104.64, 13C.5.104.65, 13C.5.104.66, 13C.5.104.67, 13C.5.104.68, 13C.5.104.69, 13C.5.104.70, 13C.5.104.71, 13C.5.104.72, 13C.5.104.73, 13C.5.104.74, 13C.5.104.75, 13C.5.104.76, 13C.5.104.77, 13C.5.104.78, 13C.5.104.79, 13C.5.104.80, 13C.5.104.81, 13C.5.104.82, 13C.5.104.83, 13C.5.104.84, 13C.5.104.85, 13C.5.104.86, 13C.5.104.87, 13C.5.104.88, 13C.5.104.89, 13C.5.104.90, 13C.5.104.91, 13C.5.104.92, 13C.5.104.93, 13C.5.104.94, 13C.5.104.95, 13C.5.104.96, 13C.5.104.97, 13C.5.104.98, 13C.5.104.99, 13C.5.104.100) | • | • | |
| Light pollution reduction - Contain lighting within each space. No more than 0.1 horizontal footcandle 15 feet beyond site (for LEED credit 5.5). (13C.5.105.1, 13C.5.105.2, 13C.5.105.3, 13C.5.105.4, 13C.5.105.5, 13C.5.105.6, 13C.5.105.7, 13C.5.105.8, 13C.5.105.9, 13C.5.105.10, 13C.5.105.11, 13C.5.105.12, 13C.5.105.13, 13C.5.105.14, 13C.5.105.15, 13C.5.105.16, 13C.5.105.17, 13C.5.105.18, 13C.5.105.19, 13C.5.105.20, 13C.5.105.21, 13C.5.105.22, 13C.5.105.23, 13C.5.105.24, 13C.5.105.25, 13C.5.105.26, 13C.5.105.27, 13C.5.105.28, 13C.5.105.29, 13C.5.105.30, 13C.5.105.31, 13C.5.105.32, 13C.5.105.33, 13C.5.105.34, 13C.5.105.35, 13C.5.105.36, 13C.5.105.37, 13C.5.105.38, 13C.5.105.39, 13C.5.105.40, 13C.5.105.41, 13C.5.105.42, 13C.5.105.43, 13C.5.105.44, 13C.5.105.45, 13C.5.105.46, 13C.5.105.47, 13C.5.105.48, 13C.5.105.49, 13C.5.105.50, 13C.5.105.51, 13C.5.105.52, 13C.5.105.53, 13C.5.105.54, 13C.5.105.55, 13C.5.105.56, 13C.5.105.57, 13C.5.105.58, 13C.5.105.59, 13C.5.105.60, 13C.5.105.61, 13C.5.105.62, 13C.5.105.63, 13C.5.105.64, 13C.5.105.65, 13C.5.105.66, 13C.5.105.67, 13C.5.105.68, 13C.5.105.69, 13C.5.105.70, 13C.5.105.71, 13C.5.105.72, 13C.5.105.73, 13C.5.105.74, 13C.5.105.75, 13C.5.105.76, 13C.5.105.77, 13C.5.105.78, 13C.5.105.79, 13C.5.105.80, 13C.5.105.81, 13C.5.105.82, 13C.5.105.83, 13C.5.105.84, 13C.5.105.85, 13C.5.105.86, 13C.5.105.87, 13C.5.105.88, 13C.5.105.89, 13C.5.105.90, 13C.5.105.91, 13C.5.105.92, 13C.5.105.93, 13C.5.105.94, 13C.5.105.95, 13C.5.105.96, 13C.5.105.97, 13C.5.105.98, 13C.5.105.99, 13C.5.105.100) | • | • | |
| Water Meters - Provide automatic or spaces proportional to occupancy > 1,000 gallery, or > 100 gallery if in building over 500,000 sq ft. (13C.5.303.1) | | • | • |
| Indoor Water Efficiency - Reduce overall use of potable water within the building by 25% by using low-flow fixtures, water-saving devices, water-efficient landscaping, and other measures. (13C.5.303.2) | | • | • |
| Occupant Savings - Provide occupant savings program that includes water conservation, energy conservation, and other measures. (13C.5.410.1, 13C.5.410.2, 13C.5.410.3, 13C.5.410.4, 13C.5.410.5, 13C.5.410.6, 13C.5.410.7, 13C.5.410.8, 13C.5.410.9, 13C.5.410.10, 13C.5.410.11, 13C.5.410.12, 13C.5.410.13, 13C.5.410.14, 13C.5.410.15, 13C.5.410.16, 13C.5.410.17, 13C.5.410.18, 13C.5.410.19, 13C.5.410.20, 13C.5.410.21, 13C.5.410.22, 13C.5.410.23, 13C.5.410.24, 13C.5.410.25, 13C.5.410.26, 13C.5.410.27, 13C.5.410.28, 13C.5.410.29, 13C.5.410.30, 13C.5.410.31, 13C.5.410.32, 13C.5.410.33, 13C.5.410.34, 13C.5.410.35, 13C.5.410.36, 13C.5.410.37, 13C.5.410.38, 13C.5.410.39, 13C.5.410.40, 13C.5.410.41, 13C.5.410.42, 13C.5.410.43, 13C.5.410.44, 13C.5.410.45, 13C.5.410.46, 13C.5.410.47, 13C.5.410.48, 13C.5.410.49, 13C.5.410.50, 13C.5.410.51, 13C.5.410.52, 13C.5.410.53, 13C.5.410.54, 13C.5.410.55, 13C.5.410.56, 13C.5.410.57, 13C.5.410.58, 13C.5.410.59, 13C.5.410.60, 13C.5.410.61, 13C.5.410.62, 13C.5.410.63, 13C.5.410.64, 13C.5.410.65, 13C.5.410.66, 13C.5.410.67, 13C.5.410.68, 13C.5.410.69, 13C.5.410.70, 13C.5.410.71, 13C.5.410.72, 13C.5.410.73, 13C.5.410.74, 13C.5.410.75, 13C.5.410.76, 13C.5.410.77, 13C.5.410.78, 13C.5.410.79, 13C.5.410.80, 13C.5.410.81, 13C.5.410.82, 13C.5.410.83, 13C.5.410.84, 13C.5.410.85, 13C.5.410.86, 13C.5.410.87, 13C.5.410.88, 13C.5.410.89, 13C.5.410.90, 13C.5.410.91, 13C.5.410.92, 13C.5.410.93, 13C.5.410.94, 13C.5.410.95, 13C.5.410.96, 13C.5.410.97, 13C.5.410.98, 13C.5.410.99, 13C.5.410.100) | • | • | |
| Protect duct openings and mechanical equipment during construction (13C.5.504.3) | | • | • |
| Adhesives, sealants, and caulks - Specify VOC limits in 85% VOC Rule 1166 VOC limits and California Code of Regulations Title 17 for solvent adhesives. (13C.5.504.4, 13C.5.504.5, 13C.5.504.6, 13C.5.504.7, 13C.5.504.8, 13C.5.504.9, 13C.5.504.10, 13C.5.504.11, 13C.5.504.12, 13C.5.504.13, 13C.5.504.14, 13C.5.504.15, 13C.5.504.16, 13C.5.504.17, 13C.5.504.18, 13C.5.504.19, 13C.5.504.20, 13C.5.504.21, 13C.5.504.22, 13C.5.504.23, 13C.5.504.24, 13C.5.504.25, 13C.5.504.26, 13C.5.504.27, 13C.5.504.28, 13C.5.504.29, 13C.5.504.30, 13C.5.504.31, 13C.5.504.32, 13C.5.504.33, 13C.5.504.34, 13C.5.504.35, 13C.5.504.36, 13C.5.504.37, 13C.5.504.38, 13C.5.504.39, 13C.5.504.40, 13C.5.504.41, 13C.5.504.42, 13C.5.504.43, 13C.5.504.44, 13C.5.504.45, 13C.5.504.46, 13C.5.504.47, 13C.5.504.48, 13C.5.504.49, 13C.5.504.50, 13C.5.504.51, 13C.5.504.52, 13C.5.504.53, 13C.5.504.54, 13C.5.504.55, 13C.5.504.56, 13C.5.504.57, 13C.5.504.58, 13C.5.504.59, 13C.5.504.60, 13C.5.504.61, 13C.5.504.62, 13C.5.504.63, 13C.5.504.64, 13C.5.504.65, 13C.5.504.66, 13C.5.504.67, 13C.5.504.68, 13C.5.504.69, 13C.5.504.70, 13C.5.504.71, 13C.5.504.72, 13C.5.504.73, 13C.5.504.74, 13C.5.504.75, 13C.5.504.76, 13C.5.504.77, 13C.5.504.78, 13C.5.504.79, 13C.5.504.80, 13C.5.504.81, 13C.5.504.82, 13C.5.504.83, 13C.5.504.84, 13C.5.504.85, 13C.5.504.86, 13C.5.504.87, 13C.5.504.88, 13C.5.504.89, 13C.5.504.90, 13C.5.504.91, 13C.5.504.92, 13C.5.504.93, 13C.5.504.94, 13C.5.504.95, 13C.5.504.96, 13C.5.504.97, 13C.5.504.98, 13C.5.504.99, 13C.5.504.100) | • | • | |
| Carpet - All carpet must meet one of the following: 1. Carpet and Rug Institute Green Label Plus Program 2. Green Label Plus Program 3. NSFPAWS 1.0 as the Gold Label Health Standard Practice for the testing of VOCs (Specification 01050) 4. Specific certifications Systems Sustainability Choices AND Carpet adhesive must not exceed 50 g/L VOC content. (13C.5.504.4, 13C.5.504.5, 13C.5.504.6, 13C.5.504.7, 13C.5.504.8, 13C.5.504.9, 13C.5.504.10, 13C.5.504.11, 13C.5.504.12, 13C.5.504.13, 13C.5.504.14, 13C.5.504.15, 13C.5.504.16, 13C.5.504.17, 13C.5.504.18, 13C.5.504.19, 13 | | | |



**Green Building Ordinance:
Supplementary Energy Compliance Documentation**

**Attachment
D**

Special Energy Compliance Form

PERF-1-GBO

This form may be used to demonstrate LEED energy equivalence using the 2008 Title 24 performance approach in cases where California energy standards do not allow specific systems to be considered in performance-based compliance calculations. In such cases, for fairness, the applicant may optionally calculate the required 15% TDV energy compliance margin based only on the systems that contribute to performance-based code compliance.

For example, in multifamily high-rise, residential unit interior lighting power density code maximum may be excluded from the calculation of the 15% TDV compliance margin.

| | | |
|-----------------------|--|------------------------------|
| Project Name/Address: | | |
| Date of T24 Report: | | Conditioned Floor Area (SF): |

1. Input Data from Title PERF-1, Part 2 of 3

| Energy Component | Standard Design (TDV KBtu/sf-yr) | Proposed Design (TDV KBtu/sf-yr) | Instructions |
|------------------|----------------------------------|----------------------------------|---|
| 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: | | | |

2. Calculate Solar Photovoltaic (PV) System Credit in the Proposed Design:

When a proposed solar PV system is to receive credit, Annual TDV Production is obtained using the CEC PV Calculator which can be downloaded for free at:

http://www.gosolarcalifornia.ca.gov/nshpcalculator/download_calculator.html

| | | | |
|--|--------------------------------|---|--|
| Annual TDV Production (TDV KWh/yr) <input style="width: 100%;" type="text"/> | X 3.413 (Floor Area) | Solar PV Credit (TDV KBtu/sf-yr) <input style="width: 100%;" type="text"/> <i>[used in Step #3]</i> | |
| TOTAL Proposed Design <input style="width: 100%;" type="text"/> <i>[from above]</i> | - Solar PV Credit = | Revised Proposed Design (TDV KBtu/sf-yr) <input style="width: 100%;" type="text"/> | |

3. Verify LEED Equivalent Energy Performance

| | | |
|--|-------------------------|--|
| Revised Proposed Design (TDV KBtu/sf-yr) <input style="width: 100%;" type="text"/> <i>[from above]</i> | must be 15% < | Standard Design (TDV KBtu/sf-yr) <input style="width: 100%;" type="text"/> <i>[from above]</i> |
|--|-------------------------|--|

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

Revised 01/01/2012



Green Building: Final Compliance Verification

This form is required prior to issuance of a final Certificate of Completion.

Address: _____

Permit Application Numbers: _____

Verification that the above referenced project has been constructed to comply with the green building requirements of the San Francisco Building Code is based upon one of the following:

Option 1: This project has submitted for certification under LEED or GreenPoint Rated ("Option 1" on the Green Building Submittal Templates), but is not yet certified. As the Design Professional of Record, I verify that, to the best of my knowledge, the project has been constructed to substantially comply with the green building requirements of San Francisco's building codes.

Signed: _____ Date: _____

Affix professional stamp:

Mandatory follow-up for Option 1: Evidence of LEED or GreenPoint Rated certification.

Staff Use Only: Proof of LEED or GreenPoint Rated certification received:
Sign & Date: _____

Option 2: This project will not utilize LEED or GreenPoint Rated certification to demonstrate compliance with San Francisco Building Code 13C. 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 San Francisco's building codes. **[Affix stamp below.]**

Signed: _____ Date: _____

Affix professional stamp:



Recommended Project Procedures for Green Building Implementation

Introduction

1. Certification by referenced standards is not required but recommended.
2. 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: www.usgbc.org, www.builditgreen.org

LEED Projects

1. Incorporate green building considerations from the beginning of project development.
2. Identify a Project Administrator who is a LEED Accredited Professional (reports to Green Building Compliance Professional of Record)
3. Register Project with Green Building Certification Institute
4. Develop Responsibility Matrix and assign credits to responsible team member(s)
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
9. Maintain detailed project records showing that green building requirements have been met.

GreenPoint Rated Projects

1. 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



Selected Helpful 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)** – Numerous resources, including Reference Guides to the LEED Rating System(s), and find workshops. www.usgbc.org
 - **US Green Building Council Northern California Chapter** – Network with local green building professionals. www.usgbc-ncc.org
 - **Green Building Certification Institute** – The site to register for the LEED Accreditation Exam, or for LEED registration and certification. www.gbci.org
- **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 / www.greenpointrated.org

