This is a detailed comparison of the new GreenPoint Rated New Home Single Family and Multifamily Version 6, the new 2013 CALGreen code, and LEED for Homes Version 4. The measures and credits compared here are not necessarily equivalent; please refer to the draft GPR Version 6 manual for more specific information on the new GPR measures, the CALGreen code for additional information on the CALGreen Tiers, and www.usgbc.org/v4 for information about LEED for Homes. Where “No CALGreen Reference” and “No LEED credit Reference” is noted, a direct measure reference could not be compared to GreenPoint Rated because no direct measure or credit aligns within that system and GreenPoint Rated.

This document has been reviewed by StopWaste, San Francisco Department of the Environment, Build It Green, the US Green Building Council, and USGBC California. Although every effort has been made to ensure accuracy, be advised that information may change, and that some comparisons are based on professional judgment by the reviewers. Use at your own risk.

### GreenPoint Rated SF and MF (Version 6.0) vs. 2013 CALGreen Code vs. LEED for Homes (Version 4)

<table>
<thead>
<tr>
<th>Measure</th>
<th>2013 CALGreen Credit</th>
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<th>LEED-H Credit</th>
<th>LEED Points</th>
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<tr>
<td><strong>A1. Construction Footprint</strong></td>
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<td>A1.1.65% C&amp;D Waste Diversion (Including Alternative Daily Cover)</td>
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<td>A1.2.65% C&amp;D Waste Diversion (Excluding Alternative Daily Cover)</td>
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<td>A2.3 Recycling Rates from Third-Party Verifiled Mix-Use Waste Facility</td>
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<td>A3. Recycled Content Base Material</td>
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**Building Information:**
- **GreenPoint Rated SF and MF (Version 6.0):** Prepared by DNV GL for StopWaste
- **2013 CALGreen Code:** A4.105.2
- **LEED for Homes (Version 4):** A4.108.2

---

### A1. Construction Footprint

**Preserve existing soil and vegetation or exceed local ordinance requirements for protecting existing site conditions.**

**Option 1:** Implement at least three of the following best practices potentially: a site preservation plan; protect trees and plants from construction activities; provide a construction staging area; incorporate contract language within General Contractor and Subcontractor agreements; and/or create a mulch bed or equivalent space.

**Option 2:** Create a project design that leaves at least 40% of the total site area undeveloped and undisturbed.

**A2.1.65% C&D Waste Diversion (Including Alternative Daily Cover)**

Develop and implement a plan for waste diversion by identifying the types of debris that will be generated on site and the location for disposal or reuse of each material. Divert 65% (based on weight) of C&D waste from landfill.

**A2.2.65% C&D Waste Diversion (Excluding Alternative Daily Cover)**

Divert 65% (based on weight) of C&D waste from landfill excluding Alternative Daily Cover and single source separate at least three of the following materials: wood, concrete, asphalt, metal, and cardboard. Additionally, divert 65% of the remaining waste.

**A2.3 Recycling Rates from Third-Party Verified Mix-Use Waste Facility**

Divert C&D waste to a facility that reports diversion rates that are certified by the Recycling Certification Institute or an approved equivalent program.

**A3. Recycled Content Base Material**

Use functional base material for walkways, driveways, and roadways with a minimum of 25% post-consumer recycled content by volume. (Material with a minimum of 50% post-consumer and post-industrial/recycled content will also receive credit.)

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**StopWaste:** at home | at work | at school

**SF Environment:** A Department of the City and County of San Francisco

---

Prepared by DNV GL for StopWaste

February 2014
### A. Heat Island Effect Reduction (Non-Roof)

**A4.1.06.1** Use at least one (or a combination) of the listed cool site practices on 50% of the total site impervious area. Building footprints must be excluded from the calculation.

Option 1: Use light-colored materials with a solar reflectance > 0.3 or a SRI of 30%.

Option 2: Use overhangs, shading elements, trees, and shrubs (or preserve existing trees and shrubs) to shade the impervious area (based on noon on June 21 at 15 years’ growth).

Option 3: Covered parking, including underground and parking garages, counts towards the total impervious area. Use covered roof material with a solar reflectance > 0.3 or an SRI greater than 20%.

<table>
<thead>
<tr>
<th>Tier 1 Reqt:</th>
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<tbody>
<tr>
<td>A4.106.7</td>
<td>A4.106.5</td>
<td>A4.105.5</td>
<td>A4.105.3</td>
<td>A4.105.2</td>
</tr>
</tbody>
</table>

#### A.2.06.2 Construction Environmental Quality Management Plan Including Flush-Out

- Implement a Construction Environmental Quality Management Plan that includes at least all of the following:
  - Protect construction materials from water damage during construction.
  - Cover ventilation ducts during construction.
  - Clean ducts if exposed.
  - Install or apply wet and/or dry materials before installing absorbent materials.
  - Conduct the flush-out for up to 80 hours prior to occupancy.
  - For rehabilitation projects, implement a dust control plan to protect occupied areas.

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<thead>
<tr>
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<tr>
<td>A4.407.4</td>
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</table>

#### A.3.06.3 Non-Leaching Roofing Materials

- Do not include copper, lead, or lead solder in flashing, gutters, or downspouts.

<table>
<thead>
<tr>
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#### A.3.06.4 Permeable Paving Material

Install permeable material on 25% of the total site hardscape, including hardscape and roadway areas but not including areas located under a covered roof surface.

<table>
<thead>
<tr>
<th>Tier 1 Reqt:</th>
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<td>A4.106.4</td>
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<td>A4.105.5</td>
<td>A4.105.3</td>
<td>A4.105.2</td>
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</table>

#### A.4.06.0 Smart Stormwater Street Design

Grade the sidewalk(s) and roadway(s) so water flowing off of 90% of the hardscape surfaces flows through landscaped areas before reaching the street. Design and grade the landscape adjacent to the hardscape areas to receive and manage stormwater runoff:
- Use curbs, bridge drainages, or perforated curbs to direct water from the street into the landscape before reaching storm drains. Include "Drains to Bay" or "Drains to Creek" signage at storm drains where applicable.

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#### A.5.06.0 Stormwater Control: Prescriptive Path

Install permeable material on 25% of the total site hardscape, including hardscape and roadway areas but not including areas located under a covered roof surface.

- For rehabilitation projects, implement a dust control plan to protect occupied areas.

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<th>Tier 1 Reqt:</th>
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<td>A4.105.3</td>
<td>A4.105.2</td>
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</tbody>
</table>

#### A.6.06.0 Foundation: Performance Path

**A6.1.06.1** Use at least one (or a combination) of the listed cool site practices on 50% of the total site impervious area. Building footprints must be excluded from the calculation.

- Option 1: Use light-colored materials with a solar reflectance > 0.3 or a SRI of 30%.
- Option 2: Use overhangs, shading elements, trees, and shrubs (or preserve existing trees and shrubs) to shade the impervious area (based on noon on June 21 at 15 years’ growth).
- Option 3: Covered parking, including underground and parking garages, counts towards the total impervious area. Use covered roof material with a solar reflectance > 0.3 or an SRI greater than 20%.

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**Prepared by DNV GL for StopWaste**

**February 2014**
## B1: Radon-Resistant Construction

**Provide a radon resistant mitigation system in accordance with the U.S. EPA Model Standards and Techniques for Control of Radon in New Residential Buildings.**

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**EAp1.1 Prereq**

**ENERGY STAR for Homes, Version 3 Water Management Item 1.4**

### B2. Foundation Drainage System

Install a foundation drainage system that meets all of the following criteria:

1. The system is specified in the building plans.
2. A perimeter drain is installed on all footings.
3. A waterproof membrane covers all foundation walls.
4. A deliberate, ventilated drainage panel is installed on the exterior of all foundation walls.

*Note: A standard French drain drainage system does not meet the requirements of this measure.*

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<td>A4.407.1, A4.407.2</td>
<td>A4.407.1, A4.407.2</td>
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</table>

**A4.407.1 Install foundation and landscape drains which discharge to a dry well, sump, bioswale or other approved on-site location.**

**A4.407.2 Install gutter and downspout systems to route water at least 5 feet away from the foundation or connect to landscape drains which discharge to a dry well, sump, bioswale, rainwater capture system or other approved on-site location. (GPR 109 plus additional requirements)**

### B3. Moisture Controlled Crawlspace

Meet all of the following criteria:

1. A premium vapor retarder system, with a minimum 6-mil thickness, is installed in the crawlspace or basement.
2. The vapor retarder is extended up the wall and piers, and is affixed with adhesive/caulk, furring strips, or treated wood/metal equivalent attachment.
3. Vapor retarder is installed over the entire crawlspace or basement floor.
4. The vapor retarder is continuous, with seams and joints appled 12 inches, stapled to the ground, taped, and fully sealed with mastic at piers, pipes, etc.
5. Any penetrations or other areas where the vapor barrier has been compromised have been sealed with tape and mastic.

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**EAp1.1 Prereq**

**ENERGY STAR for Homes, Version 3 Water Management Item 1.4**

### B4. Structural Pest Controls

Install a continuous, durable termite shield at the junction of the foundation and piers and mudsills, where pipes and other utilities penetrate the foundation or first floor from the ground, and wherever slab perimeter insulation is installed. Structural exterior wood elements (such as mudsills, posts, and stairs) are in permanent contract with concrete or soil (such as posts, deck supports, and stair stringers) will remain moist for prolonged periods, promoting rot and attracting termites. Avoid wood-to-concrete connections or create a separation with metal or plastic fasteners/dividers (e.g., an elevated post holder) to allow water to drain and wood to easily dry out. Note that caulking between the sill and foundation is not an acceptable termite shield.

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**A4.406.1 Protect from rodents**

**A4.406.2 Protect from rodents**

### B5. Termite Shields and Separated Exterior Wood-to-Concrete Connections

Maintain a minimum distance of 36 inches from the exterior wall to the center of the plant stem and trunk to keep roots away from the foundation, reduce the chance of pests traveling from nearby branches onto the home, and allow the homeowner to easily inspect for termite tunnels around the home’s foundation walls.

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**SIS3 0.5-2**

**Bt4.5 Non-toxic pest control measures. Steel mesh barrier termite control system (1 pt).**

**Bt4.6 Install a physical termite barrier system (1 pt).**

**Bt4.7 Solid concrete foundation walls, masonry walls (with a course of solid block bond beam, or concrete-filled block (0.5 pt))**

### B5.2 Plant Trunks, Basal, or Stems at Least 36 Inches from the Foundation

Maintain a minimum distance of 36 inches from the exterior wall to the center of the plant stem and trunk to keep roots away from the foundation, reduce the chance of pests traveling from nearby branches onto the home, and allow the homeowner to easily inspect for termite tunnels around the home’s foundation walls.

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**SIS3 0.5**

**Bt4.8 Design landscape features to provide a minimum 18-inch (450 millimeter) space between the exterior wall and any plantings.**

### C1. Plants Grouped by Water Needs (Hydrozoning)

Group plants and turf in low, medium, and high water usage hydrozones. At a minimum, all projects must have a low water zone. Projects may additionally have one or two additional zones based on the water needs of the plants. Projects with only low water use plants may have a single zone. Include a separate irrigation valve for each hydrozone.

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<td>A4.106.3, A4.106.3</td>
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</table>

**A4.106.3 Post construction landscape designs accomplish one or more of the following: 1. Areas disrupted during construction are restored to be consistent with native vegetation species and patterns.**

**A4.106.4 Limit turf areas: a. Not more than 50% for Tier 1. b. Not more than 25% for Tier 2. Promotion of no less than 75% native California or drought-tolerant plant and tree species. 4. Hydrozoning irrigation techniques incorporated into landscape design.**

**A4.106.5 Post construction landscape designs accomplish one or more of the following: 1. Areas disrupted during construction are restored to be consistent with native vegetation species and patterns.**

**A4.106.6 Limit turf areas: a. Not more than 50% for Tier 1. b. Not more than 25% for Tier 2. Promotion of no less than 75% native California or drought-tolerant plant and tree species. 4. Hydrozoning irrigation techniques incorporated into landscape design.**

**WEC1 1-12**

**WEC1 performance based**

**Post construction landscape designs incorporate hydrozoning techniques into landscape design.**

**Post construction landscape designs incorporate hydrozoning techniques into landscape design.**

**Prepared by DNV GL for StopWaste**

February 2014
### C2. Resource Efficient Landscapes

**C2.1 No Invasive Species Listed by Cal-IPC**

Choose trees, bushes, and other plants for the landscape area (including turf) that do not appear on the California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory list.

1. Prereq: WEc1 performance based

**C2.2 Plants Chosen and Located to Grow to Natural Size**

Choose plant species and plant locations (specifically, the proximity to neighboring plants, walkways, walls, driveways, etc.) that limit the need for shearing or pruning. All plants, trees, bushes, and other plants (but not turf) in all planting areas must be chosen to grow to their mature size and natural shape. Branches should not significantly impede any pathways between maintenance cycles. Avoid over-planting for instant effect. See Rater Manual for additional spacing requirements and restrictions. Turf is excluded from this measure.

1. No LEED credit reference

**C2.3 Drought Tolerant, California Native, Mediterranean Species, or Other Appropriate Species**

Choose plants such that 75% of the total number of plants are designated as drought tolerant or California native species.

3. A4.106.3 Both systems 75%

### C3. Minimal Turf in Landscape

**C3.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide**

Ensure that turf slopes do not exceed 10% and no overhead sprinklers are installed in areas less than eight feet wide. Landscaping with no turf will be granted full credit for this measure.

2. A4.106.3 No LEED credit reference

**C3.2 Turf on a Small Percentage of Landscaped Area**

Reduce turf areas to the following thresholds:

- One Water point: Less than 25% of landscaped area
- Two Water points: Less than 10% of landscaped area

The percentage of the landscape area is based on the area that the builder is completing. Landscaping with no turf will be granted full credit for this measure.

2. A4.106.3 Not more than 50% of landscaped area (GRP 25%)

**C3.3 Drought Tolerant, California Native, Mediterranean Species, or Other Appropriate Species**

Choose plants such that 75% of the total number of plants are designated as drought tolerant or California native species.

3. A4.106.3 Both systems 75%

### C4. High-Efficiency Irrigation System

**C4.1 No Turf on Slopes Exceeding 10% and No Overhead Sprinklers Installed in Areas Less Than Eight Feet Wide**

Reduce turf areas to the following thresholds:

- One Water point: Less than 25% of landscaped area
- Two Water points: Less than 10% of landscaped area

The percentage of the landscape area is based on the area that the builder is completing. Landscaping with no turf will be granted full credit for this measure.

2. A4.106.3 Not more than 50% of landscaped area (GRP 25%)

**C4.2 Turf on a Small Percentage of Landscaped Area**

Reduce turf areas to the following thresholds:

- One Water point: Less than 25% of landscaped area
- Two Water points: Less than 10% of landscaped area

The percentage of the landscape area is based on the area that the builder is completing. Landscaping with no turf will be granted full credit for this measure.

2. A4.106.3 Not more than 25% of landscaped area (GRP 10%)

**C5. Trees to Moderate Building Temperature**

Plant trees in a way that they will shade 50% or more of the west-facing glazing and walls (at 4 p.m. in September) on all their mature size. This can be accomplished by existing trees or newly planted deciduous trees. Trees must be deciduous to be included in the measure as they maximize cooling in the summer and solar gain in the winter. Trees do not have to be on the property to be included in the calculation.

- At least 50% reduction in heat island effect using multiple possible methods, Cal Green has more options than C5

3. A4.106.7 At least 50% reduction in heat island effect using multiple possible methods, Cal Green has more options than C5

**C6. High-Efficiency Irrigation System**

Design a project landscape that provides for efficient irrigation and accounts for irrigation head performance specifications. All irrigation systems must be designed to prevent runoff, overflow, low-head drainage, and other similar conditions that cause water to flow onto non-irrigated areas, walkways, driveways, or structures.

2. A4.304.1 Spray type only for turf. Remaining may be a combination of: Drip, Buddlers, Drip emitters, Soaker hose, Stream-rotator spray heads.

### C7. One Inch of Compost in the Top Six to Twelve Inches of Soil

Complete all of the following steps:

1. Assess the soil quality on site by having the soil professionally analyzed for texture, nutrient content, organic matter content, and pH.
2. Incorporate either a minimum of 1.4 inches of compost into the top 6-12 inches of soil or enough compost to bring the soil organic matter content to 3.5% for turf areas and 5% for planting beds (excluding areas reserved for plant species that will not thrive in such soils).
3. Use fully stabilized, certified compost as a soil amendment, where appropriate.
4. Loosen all soil in planting and turf areas to a minimum depth of six inches prior to final landscape grading. Top-dress with compost around established shrubs, around trees, and on turf.

2. No LEED credit reference

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Prepared by DNV GL for StopWaste

February 2014
C8. Rainwater Harvesting System

Install a rainwater harvesting and storage system (conveys rainwater to a cistern). In a simple system, the cistern is a hose bib at the bottom of the tank, which can be used for simple garden and watering purposes. A more extensive system has a pump that can be integrated into the landscape irrigation system or even through fillers and into the home’s total tank system. Credit is awarded based on the size of the cistern(s).

Multifamily: Install a rainwater harvesting and storage system that captures rainwater and plumbs it to offset potable water use for nonpotable demands, such as landscape irrigation, flushing toilets/urinals, or laundry to offset at least 25% of the demand for indoor and outdoor non-potable water. Credit for this measure may be achieved by using a rainwater harvesting system and a graywater system.

C9. Recycled Wastewater Irrigation System

Install a “purple pipe” system that uses municipally recycled water for the home’s irrigation system. Installing the pre-plumbing necessary for a purple pipe for future use qualifies for this measure.

C10. Submeter or Dedicated Meter for Landscape Irrigation

Install a landscape sub-meter combined with irrigation controllers.

C11. Landscape Meets Water Budget

Install an irrigation system whose water budget meets one of the following thresholds:

- Installers: ≤ 0.65 Reference Evapotranspiration (ET0) Two points: ≤ 0.50 ET0

- The landscape professional must do the following:
  - Estimate the amount of water that will be needed by a particular landscape design on a specific site.
  - Use an approved methodology provided in the Updated Model Water Efficient Landscape Ordinance (AWPL) and a local water efficient landscape ordinance.
  - Ensure that the design can be compared to a water budget.
  - Ensure the change is acceptable to a water budget.
  - Ensure the water budget is met by incorporating hydrozoning, high efficiency irrigation, and native plant palette, and other best practices.

C12. Environmentally Preferable Materials for Site

C12.1 Environmentally Preferable Materials for 70% of Non-Plant Landscape Elements and Fencing

Use one or more varieties of environmentally preferable materials for 70% of the installed non-plant landscape elements, such as:

- FSC certified wood products
- Recycled content products (30% post-consumer or 100% pre-consumer)
- Salvaged wood products

C13. Reduced Light Pollution

Provide a minimum number of large stature trees (species whose minimum size can reach 50 feet in height and/or width according to a published reference), using the following tree square foot ratio:

- ≤ 15,000 sq. ft., ≥ 1 large stature tree.
- > 15,000-30,000 sq. ft., ≥ 2 large stature trees.
- > 30,000 sq. ft., ≥ 3 large stature trees.
- 30,000+ sq. ft., provide ≥ 2 more large stature trees per additional acre.

C14. Large Stature Tree(s)

Provide a minimum number of large stature trees (species whose minimum size can reach 50 feet in height and/or width according to a published reference), using the following tree square foot ratio:

- ≤ 15,000 sq. ft., ≥ 1 large stature tree.
- > 15,000-30,000 sq. ft., ≥ 2 large stature trees.
- > 30,000 sq. ft., ≥ 3 large stature trees.
- > 30,000 sq. ft., provide ≥ 2 more large stature trees per additional acre.

2013 CALGreen code

A4.304.2 System must capture rainwater from at least 65% of roof.
A4.304.4 System must capture rainwater from at least 80% of roof.

LEED for Homes (Version 4)

WEc1 1-12 WEc1 performance based

EAc3 1 Install a submeter to monitor irrigation system components (if the project has an automatically in-ground irrigation system and the landscape irrigated area is larger than 1,000 square feet)
## GreenPoint Rated SF and MF (Version 6.0)

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<td>D. STRUCTURAL FRAME AND BUILDING ENVELOPE</td>
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<tr>
<td>D1. Optimal Value Engineering</td>
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<tr>
<td>D1.1 Joints, Rafter, and Studs at 24 inches on Center</td>
<td>3 No CALGreen Reference</td>
<td>MR4 0.5 - 1.5</td>
</tr>
<tr>
<td>Use framing that is 24 inch on center. For 1-2 story buildings: include all interior and exterior walls. For multifamily buildings &gt; 2 stories, include interior and exterior walls on the top floor and only interior walls on all other floors.</td>
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</tr>
<tr>
<td>D1.2 Non-Load Bearing Door and Window Headers Sized for Load</td>
<td>A4.404.1 Beams, Headers, Trimmers properly sized for load specified in IRC Tables R502.5(1)(2);</td>
<td>A4.404.1 Beams, Headers, Trimmers properly sized for load specified in IRC Tables R502.5(1)(2);</td>
</tr>
<tr>
<td>Hotel headers with 4&quot;x4&quot; lumber or less on non-load-bearing walls. Note: An engineer or architect will typically provide a header schedule for only load-bearing walls, not non-load-bearing walls. This measure focuses on non-load-bearing walls; therefore, load-bearing walls do not need to be evaluated.</td>
<td>MR4 0.5 Implement any two of the following; for 0.5 points: (1) Use headers for actual loads, ladder blocking or drywall clips, or two stud California cornices.</td>
<td></td>
</tr>
<tr>
<td>D1.3 Advanced Framing Measures</td>
<td>2 No CALGreen Reference</td>
<td>EA1 prereq</td>
</tr>
<tr>
<td>Use at least three of the strategies listed in the Rating Manual to reduce framing in walls.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2. Construction Material Efficiencies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D2.1 Design of Pre-Fabricated Framing Systems</td>
<td>A4.404.2 For at least 80% of the structure at least one or more of the following: 1. Building design dimensions in 2-foot increments are used.</td>
<td>A4.404.2 For at least 80% of the structure at least one or more of the following: 1. Building design dimensions in 2-foot increments are used.</td>
</tr>
<tr>
<td>1 Building design dimensions in 2-foot increments are used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Windows and doors are located at regular 18&quot; or 24&quot; stud positions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Other methods acceptable to the enforcing agency.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4.404.3 At least 1 premanufactured building system is used.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pre-fabricated walls, floors, or roofs that have insulation installed, such as SIPs or other pre-made building systems or solid-wall assembly, are not eligible for this measure.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3. Engineered Lumber</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3.1 Engineered Beams and Headers</td>
<td>1 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>Use engineered beams and headers in construction.</td>
<td>1 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>D3.2 Wood-Laminated or Web-Trussed for Floors</td>
<td>A4.404.1</td>
<td>A4.404.1</td>
</tr>
<tr>
<td>Use wood-laminated or web-trussed for floors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3.3 Engineered Lumber for Roof Rafter</td>
<td>1 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>Use engineered lumber for roof rafter.</td>
<td>1 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>D3.4 Engineered or Finger-Jointed Studs for Vertical Applications</td>
<td>5 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>Use engineered or finger-jointed studs for vertical applications.</td>
<td>5 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>D3.5 Engineered or Finger-Jointed Studs for Subfloor</td>
<td>0.5 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>Use engineered or finger-jointed studs for subfloor.</td>
<td>0.5 No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

### Notes
- No LEED credit reference
- LEED credit reference
- Prereq
- Note on permitted load-bearing and non-load-bearing structures.
- Pre-condition for the SBC credit in LEED v4 and the WBC credit in LEED 2009.

---

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February 2014

Page 6
**D4. Insulated Headers**
- Use insulated headers for all headers on exterior walls. 90% of the headers (based on length) must comply. Note that Structural Insulated Panel (SIP) walls and Insulated Concrete Form (ICF) walls both qualify.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No CALGreen Reference</td>
<td>EEq1 <em>prereq</em></td>
</tr>
</tbody>
</table>

**D5. FSC-Certified Wood**
- Use FSC-certified solid wood framing, OSB, and plywood.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D5.1 Dimensional Lumber, Studs, and Timber**
- Use at least the following percentages of FSC-certified lumber (calculated in board feet):
  - Two points: Minimum 40%
  - Four points: Minimum 65%
  - Six points: Minimum 90%

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D5.2 Panel Products**
- Use FSC-certified lumber (calculated in board feet):
  - One point: Minimum 40%
  - Two points: Minimum 65%
  - Three points: Minimum 90%
- This measure includes plywood and OSB used for the subfloor, wall sheathing, interior sheer walls, and roof decking.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D6. Solid Wall Systems**

**D6.1 At Least 90% of Floors**
- Replace at least 90% of floors (calculated in area) with a solid system. This measure excludes concrete slab-on-grade.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A4.404.3 See above</td>
<td>A4.404.3 See above</td>
</tr>
</tbody>
</table>

**D6.2 At Least 90% of Exterior Walls**
- Replace at least 90% of exterior walls (calculated in area) with a solid system.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A4.404.3 See above</td>
<td>A4.404.3 See above</td>
</tr>
</tbody>
</table>

**D6.3 At Least 90% of Roofs**
- Replace at least 90% of roofs (calculated in area) with a solid system.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A4.404.3 See above</td>
<td>A4.404.3 See above</td>
</tr>
</tbody>
</table>

**D7. Energy Heels on Roof Trusses**
- Design and install a roof truss with a raised heel that allows for 15% of the depth of the attic insulation value at the outside edge of the exterior wall, while also allowing for attic ventilation as required.
- Flat roofs that have insulation that extends over the exterior wall comply with this measure.
- This measure is only available to homes with 3 floors.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No CALGreen Reference</td>
<td>- No LEED credit reference</td>
</tr>
</tbody>
</table>

**D8. Overhangs and Gutters**
- Build an overhang around the building’s entire roof, with gutters installed on 90% of eaves. Points are determined based on the size of the overhang, as follows:
  - One Resources point: 16 inch overhang and gutters
  - One Resource point and one Energy point: 24 inch overhang and gutters
- Note: This measure is available only to homes with three floors or less.
- Rain chains do not qualify as downspouts, unless they are 24 inches from the home, do not splash on the home, and have deliberate drainage pathways discharging at least 5 feet from the foundation, as described previously.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>A4.407.6, A4.407.7</td>
<td>SSc3 0.5 Gutter discharge &gt;24 in from foundation</td>
</tr>
</tbody>
</table>

**D9. Reduced Pollution Entering the Home from the Garage**
- As a prerequisite for all criteria in this measure, no heating or cooling system ductwork or central air handlers shall be present in the garage.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>No CALGreen Reference</td>
<td>- No LEED credit reference</td>
</tr>
</tbody>
</table>

**D9.1 Detached Garage**
- A detached, detached garage, or no garage meets the intent of this measure.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D9.2 Mitigation Strategies for Attached Garage**
- Install an exhaust fan in the attached garage. For multi-family projects, one must be controlled by carbon monoxide sensors where demand-controlled ventilation of garages is required.
- Tightly seal the air barrier between the garage and living areas.
- Completely seal the garage walls and ceilings adjacent to the home.
- Verification of air tight seal shall be accomplished by using a blower door test.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D10. Structural Pest and Rod Controls**

**D10.1 All Wood Located At Least 12 Inches Above the Soil**
- Ensure that the distance between the subfloor plate (or subfloor) and the finished soil grade after foundation plant landscaping and mulching is at least 12 inches. Assume at least three inches of mulching.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

**D10.2 Wood Framing Treated With Borates or Factory-Impregnated, or Wall Materials Other Than Wood**
- Comply with one of the following:
  - All wood three feet from the foundation is treated with Borates.
  - All material within three feet of the foundation uses factory-impregnated materials.
  - All walls are not made of wood.

<table>
<thead>
<tr>
<th>Option</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A4.406.1 See above</td>
<td>A4.406.1 See above</td>
</tr>
</tbody>
</table>

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February 2014
## E. EXTERIOR

### E1. Environmentally Preferable Decking

Use one of the following preferred (see Rating Manual for definitions and restrictions) materials in non-structural deck applications (including deck framing, stair treads, stair risers, and railings):

- Recycled materials
- Locally produced materials
- Recycled-content lumber
- FSC-certified wood material

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
<th>A4.405.4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### E2. Flashing Installation Third-Party Verified

Use plans that show flashing details, including details for all significant exterior building material locations: e.g., siding, roofing, windows, doors, valleys, deck/house junction, roof/wall junctions, chimney step, utility penetrations, and roof penetrations.

Details must be verified by a qualified third-party professional.

<table>
<thead>
<tr>
<th>Details</th>
<th>A4.407.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flashing details in plans for:</td>
<td></td>
</tr>
<tr>
<td>1. Around windows and doors.</td>
<td></td>
</tr>
<tr>
<td>2. Roof valleys.</td>
<td></td>
</tr>
<tr>
<td>3. Deck connections to the structure.</td>
<td></td>
</tr>
<tr>
<td>4. Roof-to-wall intersections.</td>
<td></td>
</tr>
<tr>
<td>5. Chimneys to roof intersections.</td>
<td></td>
</tr>
<tr>
<td>6. Dip caps above windows and doors with architectural projections. (no third party verification)</td>
<td></td>
</tr>
</tbody>
</table>

### E3. Rain Screen Wall System

Use siding that includes a minimum 0″ of air space present between the siding and the drainage plan or sheathing.

<table>
<thead>
<tr>
<th>Method</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use siding that includes a minimum 0″ of air space present between the siding and the drainage plan or sheathing</td>
<td></td>
</tr>
</tbody>
</table>

### E4. Durable and Non-Combustible Cladding Materials

Construct the exterior wall finish (e.g. cladding or siding) with durable and non-combustible materials, such as, metal, stone, brick, traditional three-coat cementitious stucco, or fiber-cement.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### E5. Durable Roofing Materials

All roofs must have a “Class A” fire rating and a 3-year workmanship/installation warranty.

<table>
<thead>
<tr>
<th>Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>All roofs must have a “Class A” fire rating and a 3-year workmanship/installation warranty</td>
<td></td>
</tr>
</tbody>
</table>

#### E5.1 Durable and Fire Resistant Roofing Materials or Assembly

- 100% of the total roof area: 4 points
- Not less than 15% of the total roof area: 2 points
- Not less than 10% of the total roof area: 1 point

<table>
<thead>
<tr>
<th>Percentage</th>
<th>A4.106.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not less than 15% of the total roof area</td>
<td></td>
</tr>
<tr>
<td>Not less than 10% of the total roof area</td>
<td></td>
</tr>
</tbody>
</table>

### E5.2 Roofing Warranty for Shingle Roofing

For Multifamily Only: All shingle roofing must carry a 3-year subcontractor warranty and at least a 20-year manufacturer’s warranty.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### E6. Vegetated Roof

Install a vegetated roof that makes up at least the given percentage of the total roof area, as follows:

- Min. 25% of the total roof area: 2 points
- Min. 50% of the total roof area: 3 points

<table>
<thead>
<tr>
<th>Percentage</th>
<th>A4.106.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. 25% of the total roof area</td>
<td></td>
</tr>
<tr>
<td>Min. 50% of the total roof area</td>
<td></td>
</tr>
</tbody>
</table>

## F. INSULATION

### F1. Insulation with 30% Post-Consumer or 60% Post-Industrial Recycled Content

Use insulation containing at least 30% post-consumer recycled content or a mix of post-consumer and post-industrial content.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### F1.1 Walls and Floors

- 50% of the credit is allocated for walls and 50% is allocated for floors.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### F1.2 Ceilings

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## G. WATER RESOURCES

### G1. Water-Efficient Fixtures

Install low-flow bathroom fixtures and faucets.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### G1.1 Water-Efficient Fixtures

- For any clothes washers or dishwashers installed in or over the living space, install a drain pan and plumb it to a drain. Tankless and/or hybrid water heaters must also have pans and drains.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### G1.2 Water-Efficient Fixtures

- Use water-resistant flooring in kitchen bathroom laundry room, spa areas and entryways. Install drain and drain pan under clothes washers and tank water heaters in or over living space.

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

## LEED for Homes (Version 4)

### LEED Points

<table>
<thead>
<tr>
<th>LEED Credit</th>
<th>LEED Point &amp; Credit</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

## Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

### GreenPoint Rated SF and MF (Version 6.0)

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

### 2013 CALGreen Code

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
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</table>

### LEED for Homes (Version 4)

<table>
<thead>
<tr>
<th>Material Type</th>
<th>A4.405.3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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February 2014
Page 8
Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

GreenPoint Rated SF and MF (Version 6.0)

<table>
<thead>
<tr>
<th>F. Insulation Meets CDPH Low Emissions Residential Standard</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use insulation that meets the specifications for the CDPH-2010 Standard Method residential standard.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>F.2 Walls and Floors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% of the credit is allocated for walls and 50% is allocated for floors.</td>
<td>1</td>
<td>A4.504.3</td>
</tr>
<tr>
<td><strong>F.2.2 Ceilings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One IAQ/Health point is available.</td>
<td>1</td>
<td>A4.504.3</td>
</tr>
<tr>
<td><strong>F.3. Insulation That Does Not Contain Fire Retardants</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use insulation with no halogenated flame retardants and no plastic foam insulation products (with the exception of exterior insulation installed over sheathing).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>F.3.1 Cavity Walls and Floors</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>50% of the credit is allocated for walls and 50% is allocated for floors.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>F.3.2 Ceilings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One IAQ/Health point is available.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>F.3.3 Interior and Exterior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One IAQ/Health point is available. This measure includes exterior insulation as well as cavity and interior insulation.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

P. PLUMBING

**G1. Insulated Hot Water Pipes**
- Insulate all hot water pipes.

**G2. WaterSense Volume Limit for Hot Water Distribution**
- Meet the EPA WaterSense Standards for the volume limit for hot water distribution.

**G3. Increased Efficiency in Hot Water Distribution**
- Design and implement the plumbing system so the water temperature at the farthest fixture from the hot water source increases a minimum of 10 degrees Fahrenheit after running for 0.25 gallons (or approximately 4 cups of water). All fixtures must meet waterSense.

**G.3.3 WaterSense Toilets with a Maximum Performance (MaP) Threshold**
- Install high-efficiency toilets in the dwelling. Toilets must use a matching compensation valve. The automatic compensation valve must be rated for the minimum flow rate of the toilet.

**G.2 WaterSense Showheads with Matching Compensation Valve**
- Showsheds must be WaterSense certified with a flow rate of 2.0 gallons per minute. Showsheds must be matched with a matching compensation valve.

**G.2.2 WaterSense Bathroom Faucets**
- Residential looking faucets should have a flow rate ≤ 1.5 gallons/minute. Non-residential metered faucets should have a flow rate ≤ 0.25 gallons/minute. The flow rate mechanism may be factory installed or an accessory.

- Design and install a graywater system for landscape irrigation use (i.e., not a septic system) or indoor water use.

- Design and install a graywater system for landscape irrigation use (i.e., not a septic system) or indoor water use.

- Insulate all hot water pipes.

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### Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

<table>
<thead>
<tr>
<th>GreenPoint Rated SF and MF (Version 6.0)</th>
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<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H2. High Performing Zoned Hydronic Radiant Heating System</strong></td>
<td>Include a high performing hydronic radiant heating system in the dwelling.</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Electric heating, forced air heating, and/or systems with a fan of any kind, including through-the-wall hydronic fan units, are not eligible for this measure. Hydronic heating systems with a cooling feature are eligible for this measure.</td>
<td></td>
</tr>
<tr>
<td><strong>H3. Effective Ductwork</strong></td>
<td><strong>H3.1 Duct Mastic on Duct Joints and Seams</strong></td>
<td>Only fiber mesh tape that is thoroughly embedded in duct mastic is acceptable.</td>
</tr>
<tr>
<td></td>
<td><strong>H3.2 Pressure Balance the Ductwork System</strong></td>
<td>Install an additional return duct in the master bedroom and/or other large rooms that can be closed off with a door. Install a jump duct or transfer grille between these rooms and the hall or main living area. For dwellings that do not have forced air heating and/or cooling systems, depressurize the dwelling and/or rooms to achieve this measure.</td>
</tr>
<tr>
<td></td>
<td><strong>H4. ENERGY STAR® Bathroom Fans Per HVI Standards with Air Flow Verified</strong></td>
<td>Install an ENERGY STAR®-qualified bathroom exhaust fan that is ducted to outdoors and controlled to operate whenever relative humidity &gt; 60%. A bathroom is defined as any room containing a tub and/or shower. Each bathroom exhaust fan must be sized according to the Home Ventilating Institute guidelines.</td>
</tr>
<tr>
<td></td>
<td><strong>H5. Advanced Practices for Cooling</strong></td>
<td><strong>H5.1 ENERGY STAR® Ceiling Fans in Living Areas and Bedrooms</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>H5.2 Operable Windows and Skylights Located to Induce Cross Ventilation in At Least One Room in 80% of Units</strong></td>
</tr>
<tr>
<td></td>
<td><strong>H6. Whole House Mechanical Ventilation Practices to Improve Indoor Air Quality</strong></td>
<td><strong>H6.1 Meet ASHRAE 62.2-2012 Ventilation Residential Standards</strong></td>
</tr>
</tbody>
</table>
|  |  | **H6.2 Advanced Ventilation Standards**  | Meet the following criteria:  
- Ventilation fan: Used for continuous operation, HVI-rated and deliver ≥ 0.35 air changes per hour  
- MERV ≥ 8 filters on supply and balanced ventilation systems  
- Fans and ducts: Minimize noise and vibration transfer to the living space  
- Ventilation system controls, including the on/off switch, must be clearly labeled.  
- Develop a Homeowner's Manual regarding the ventilation system purpose, operation, and maintenance. | 1 | No CALGreen Reference | No CALGreen Reference | EEq1 | 1-2 |
|  |  | **H6.3 Outdoor Air Ducted to Bedroom and Living Areas**  | Filter all outdoor air (≥ MERV 6 filter) and duct supply it directly to all bedrooms and main living areas. The outdoor air duct can be achieved by a supply system or balanced (exhaust and supply) system where the supply is separately ducted to those areas. | 2 | No CALGreen Reference | No CALGreen Reference | - | No LEED credit reference |
|  | **H7. Effective Range Hood Design and Installation** | **H7.1 Effective Range Hood Ducting and Design**  | Meet the requirements for minimum and maximum airflows, duct installation, and range hood design and performance. | 1 | No CALGreen Reference | No CALGreen Reference | - | No LEED credit reference |
|  |  | **H7.2 Automatic Range Hood Control**  | Ensure that the range hood is equipped with a control to automatically turn on when the range or oven is used for cooking. | 1 | No CALGreen Reference | No CALGreen Reference | - | No LEED credit reference |

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### Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

#### GreenPoint Rated SF and MF (Version 6.0)  
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<table>
<thead>
<tr>
<th>Measure</th>
<th>GreenPoint Rating</th>
<th>2013 CALGreen Code</th>
<th>LEED for Homes</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.6 No Fireplace or Sealed Gas Fireplace</td>
<td>-</td>
<td>1. 4.503.1 Sealed Gas Fireplace</td>
<td>1. EQp2</td>
<td>Any combustion fireplaces must be fully enclosed. Non sealed combustion fireplaces must pass BPI or RESNET standards</td>
</tr>
<tr>
<td>H.9 Humidity Control Systems</td>
<td>-</td>
<td>1. No CALGreen Reference</td>
<td>1. EQc3</td>
<td>Enhanced ventilation. Credit can be earned for humidistat controller</td>
</tr>
<tr>
<td>H.10 Register Design Per ACCA Manual T</td>
<td>-</td>
<td>1. No CALGreen Reference</td>
<td>-</td>
<td>No LEED credit reference</td>
</tr>
</tbody>
</table>

#### RENEWABLE ENERGY

<table>
<thead>
<tr>
<th>Measure</th>
<th>GreenPoint Rating</th>
<th>2013 CALGreen Code</th>
<th>LEED for Homes</th>
<th>Reasoning</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.1 Pre-Plumbing for Solar Water Heating</td>
<td>-</td>
<td>1. No CALGreen Reference</td>
<td>1. EAa3</td>
<td>Homes: active solar ready design Midrise: NA</td>
</tr>
<tr>
<td>I.2 Preparation for Future Photovoltaic Installation</td>
<td>-</td>
<td>1. No CALGreen Reference</td>
<td>1. EAa3</td>
<td>Homes: active solar ready design Midrise: NA</td>
</tr>
<tr>
<td>I.3 Onsite Renewable Generation (Solar PV, Solar Thermal, and Wind)</td>
<td>25</td>
<td>25</td>
<td>EA1.4</td>
<td>Prescriptive: On-site renewable energy. Performance included with modeling</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td><strong>I4.1 Near Zero Energy Home</strong></td>
<td>Offset the estimated annual site energy use by at least 90% using the GreenPoint Rated Near Zero Energy calculator or other approved methodology described in 14.</td>
<td>2</td>
</tr>
<tr>
<td><strong>I4.2 Net Zero Electric</strong></td>
<td>Offset the estimated annual site energy use by 100% using the GreenPoint Rated Near Net Zero calculator or other approved methodology above. To accomplish this, the home must be all electric. Measure I.1, &quot;Near Zero Energy Home,&quot; is a prerequisite for this measure, therefore, a project that offsets 100% of the estimated annual site energy will earn six points.</td>
<td>4</td>
</tr>
<tr>
<td><strong>I5. Solar Hot Water Systems to Preheat Domestic Hot Water</strong></td>
<td>Use only solar water heaters that are Solar Rating and Certification Corporation (SRCC) certified. The solar water heater must be the primary heater. The system must serve at least 40% of the hot water load, as calculated using F-Chart, other CEC-approved software, or a jurisdiction-approved calculation method. A swimming pool solar water system does not satisfy this measure.</td>
<td>4</td>
</tr>
<tr>
<td><strong>I6. Photovoltaic System for Multifamily Projects</strong></td>
<td>Provide a portion of the estimated annual electric energy demand with a solar photovoltaic system, as follows:  Four points: 50% of common area load Eight points: 90% of common area load Twelve points: 10% or more of the load for residential units Include all areas of the project built by the developer in the estimated demand.</td>
<td>12</td>
</tr>
</tbody>
</table>

2. BUILDING PERFORMANCE AND TESTING:

<p>| 2J. Third-Party Verification of Quality of Insulation Installation | Have a meeting with (at a minimum) a Home Energy Rating System (HERS) rater, insulation contractor, drywall contractor, and general contractor to review the Quality of Insulation Installation (QII) and thermal bypass criteria process and the checklist to be completed by responsible parties.  | 1  | A4.203.1.1.2  | A4.203.1.1.2  | EAp1.1  | Prereq  | EnergyStar for Homes v3 prereq  |
| 2K. Supply and Return Air Flow Testing | Use a Home Performance Professional to perform air flow testing of supply and return registers and verify that flow meets the design performance targets. If test results are not as designed, conduct corrective actions to achieve the performance targets. Use a flow hood to test the total supply air flow rates in each room of the home. Performance air flow testing should follow Building Performance Institute (BPI) standard testing practices, or an equivalent recognized methodology.  | 2  | No CALGreen Reference  | No CALGreen Reference  | EAp1.1, EQc3  | Prereq  | EnergyStar for Homes v3 prereq. Have supply air flow rates be within 20% or 25 cfm of ACCA Manual J, as tested by 3rd party rater  |
| 2M. Mechanical Ventilation Testing and Low Leakage | Use a certified HERS Rater to conduct a mechanical ventilation system (supply and exhaust fan used for ventilation) test and verify that performance meets or exceeds ASHRAE Standard 62.2-2010 requirements. Also, pressure to verify that the duct system does not leak more than 6%.  | 1  | No CALGreen Reference  | No CALGreen Reference  | EA1.11  | Prereq  | HOMES: EnergyStar v3 prereq. Midrise: NA  |
| 2N. Combustion Appliance Safety Testing | Use a certified Home Performance Professional to conduct a combustion safety test (if needed) to ensure carbon monoxide Rowe. Use a carbon monoxide detector to test for the maximum concentration of CO from an appliance and verify that the system does not leak more than 6%.  | 1  | No CALGreen Reference  | No CALGreen Reference  | EQc4  | Option 2: Enhanced Combustion Venting Measures  |</p>
<table>
<thead>
<tr>
<th>J5. Building Performance Exceeds Title 24 Part 6</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>J5.1 Home Outperforms Title 24 Part 6</strong></td>
<td>60</td>
<td>EA1.4 1-30</td>
</tr>
<tr>
<td>Build the dwelling to outperform energy efficiency requirements, as follows: 2009 Title 24 projects: exceed energy code by ≤ 15%; 2013 Title 24 projects: exceed energy code by ≤ 15%; Energy points will be awarded for every 1% achieved over 15%.</td>
<td>A4.203.1.1 An Energy Design Rating for the Proposed Design Building is included in the Certificate of Compliance documentation. A4.203.1.2 QI procedures specified in the Building Energy Efficiency Standards Reference Residential Appendix RA3.5 are completed.</td>
<td>See above. Performance ASHRAE 90.1-2010; Insulation 10%-20% above 2012 International Energy Conservation Code (IECC), Chapter 4, or local code, Window U values above ENERGY STAR requirements.</td>
</tr>
<tr>
<td><strong>J5.2 Non-Residential Spaces Outperform Title 24 - 1 pt for every 1% above minimum</strong></td>
<td>60</td>
<td>N/A N/A</td>
</tr>
<tr>
<td>Earn one Energy point for every 1% that the project outperforms the CEC energy modeling summary, based on a weighted average of the square footage of the non-residential area.</td>
<td>Refer to CA 2013 CALGreen Non-Residential Building Code</td>
<td>Refer to LEED BD&amp;C requirements for non-residential spaces.</td>
</tr>
<tr>
<td><strong>J6. Title 24 Prepared and Signed by a CABEC Certified Energy Analyst</strong></td>
<td>1</td>
<td>EA1.4 1-30</td>
</tr>
<tr>
<td>Use a Certified Energy Analyst (CEA) who has been certified by the California Association of Building Energy Consultants (CABEC) to prepare and sign a Title 24 Energy report.</td>
<td>No CALGreen Reference</td>
<td>Homes: NA Midrise: USGBC residential simulation guidelines. Must be CEA or CEPE</td>
</tr>
<tr>
<td><strong>J7. Participation in Utility Program with Third-Party Plan Review</strong></td>
<td>1</td>
<td>EA1.4 1-30</td>
</tr>
<tr>
<td>Participate in an energy efficiency incentive program or a renewable energy program with a third-party plan review offered by a local utility. Implementation of all planned measures must be verified by a certified HERS Rater.</td>
<td>No CALGreen Reference</td>
<td>Case 2, opt 2, 3rd party Utility reporting=1pt.</td>
</tr>
<tr>
<td><strong>J8. ENERGY STAR for Homes</strong></td>
<td>1</td>
<td>EA1.1 prereq</td>
</tr>
<tr>
<td>Build the dwelling to outperform energy efficiency requirements, as follows: 2009 Title 24 projects: exceed energy code by ≤ 15%; 2013 Title 24 projects: exceed energy code by ≤ 15%; Energy points will be awarded for every 1% achieved over 15%.</td>
<td>No CALGreen Reference</td>
<td>Homes: EnergyStar v3 prereq Midrise: Partially applies</td>
</tr>
<tr>
<td>For multifamily high rise pilot projects, the project must exceed the current code by 15% and also provide incremental cost of measure upgrades, commit to providing utility bill data for two years after completion of the project, and meet version 1.1 (June 2020) of the ENERGY STAR Multifamily High Rise Program Minimum Performance Standards (MPS). The MPS are national guidelines; they are achieved by meeting California’s T-24 requirements as well as the mandatory requirements.</td>
<td>No CALGreen Reference</td>
<td>Homes: EnergyStar v3 prereq Midrise: Partially applies</td>
</tr>
</tbody>
</table>
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<tr>
<td>J8. EPA Indoor airPlus Certification</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Perform a blower door test to measure CFM50 and estimate the interior air changes per hour (ACH) for the dwelling. Points are achieved based on the test results as follows:</td>
<td>2.5 ACH&lt;50 — One IAQ/Health point</td>
<td>EPA Indoor airPlus Certification automatically qualifies the project for these prereq and gains 2.5 points (additional points available in the listed credits)</td>
</tr>
<tr>
<td>K1. Entryways Designed to Reduce Tracked-In Contaminants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design and build a deliberate and obvious hard surface area at the home’s main entrance. This area must offer room for occupants and visitors to comfortably take off and, in a permanently installed, obvious assembly, store their shoes. A permanently installed bench or shelf with shoe storage on the porch meets this measure.</td>
<td>1</td>
<td>0.5-1</td>
</tr>
<tr>
<td>K2. Zero-VOC Interior Wall and Ceiling Paints</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use zero VOC interior wall and ceiling paints. The paints and primers must emit less than 5 g/L VOCs regardless of sheen.</td>
<td>2</td>
<td>4.504.2.2, 4.504.2.4</td>
</tr>
<tr>
<td>K3. Low-VOC Caulks and Adhesives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use zero VOC caulks and adhesives that emit &lt;30 g/L VOCs or less. Products covered by this measure include subfloor adhesive, general construction adhesive, carpet adhesive, duct mastic, window and trim caulk, general use caulk, bathroom and kitchen caulk, tile mastic, and fire and acoustic caulk.</td>
<td>1</td>
<td>4.504.2.1, 4.504.2.4</td>
</tr>
</tbody>
</table>

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## Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

### GreenPoint Rated SF and MF (Version 6.0)

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<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Use environmentally preferable materials that meet one of the following: - FSC-certified wood material. - Reclaimed or refurbished materials. - Rapidly renewable materials, with a cycle of 10 years or less. - Materials with &gt; 50% post-consumer recycled content. - Finger-joined materials. - Locally sourced and fabricated material.</td>
<td>NA - see below</td>
<td>NA - see below</td>
</tr>
<tr>
<td><strong>K4.1 Cabinets</strong></td>
<td><strong>K4.2 Interior Trim</strong></td>
<td><strong>K4.3 Shelving</strong></td>
</tr>
<tr>
<td>Use cabinet materials that meet one of the defined attributes. Points are allocated based on the percentage of the square footage of all cabinet materials that meet one defined attribute, as follows: One Resources point: 50% Two Resources points: 80% This measure includes materials used in the box, face, frame, toe-kick, shelves, and door. It does not include counter-top or counter-top substrate.</td>
<td><strong>K4.4 Doors</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
<tr>
<td>2</td>
<td><strong>A4.405.3</strong></td>
<td><strong>A4.405.3 Tier 1 Req:</strong> Not less than 10% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
</tr>
<tr>
<td><strong>A4.405.4</strong></td>
<td><strong>A4.405.3 Tier 2 Req:</strong> Not less than 15% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
<td><strong>LEED Eq.7:</strong> One point available for all categories combined. Composite wood products must be constructed from materials documented to have low formaldehyde emissions that meet the California Air Resources Board requirements for ultra-low emitting formaldehyde (ULEF) resins or no-added formaldehyde based resins. (1 pt)</td>
</tr>
<tr>
<td><strong>K4.2 Interior Trim</strong></td>
<td><strong>K4.3 Shelving</strong></td>
<td><strong>K4.4 Doors</strong></td>
</tr>
<tr>
<td>Use interior trim that meets one of the defined attributes. Points are allocated based on the percentage of the total square footage or linear length of the trim casing that meets one defined attribute, as follows: One Resources point: 50% Two Resources points: 80%</td>
<td><strong>K4.5 Countertops</strong></td>
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<td><strong>LEED Eq.7:</strong> see above</td>
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<tr>
<td><strong>K4.3 Shelving</strong></td>
<td><strong>K4.4 Doors</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
<tr>
<td>Use shelving, support structure, and encasement that meet one of the defined attributes. Points are allocated based on the percentage of the total square foot area or linear length of the material that meets one defined attribute, as follows: Two Resources points: 80%</td>
<td><strong>K4.4 Doors</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
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<td><strong>A4.405.3 Tier 2 Req:</strong> Not less than 15% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
<td><strong>LEED Eq.7:</strong> see above</td>
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<td><strong>K4.4 Doors</strong></td>
<td><strong>K4.5 Countertops</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
<tr>
<td>Use doors and frames that meet one of the defined attributes. Points are allocated based on the percentage of board feet (to account for varying door thickness) that meets one defined attribute, as follows: One Resources point: 50% Two Resources points: 80%</td>
<td><strong>K4.5 Countertops</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
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<td>2</td>
<td><strong>A4.405.3</strong></td>
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<tr>
<td><strong>K4.5 Countertops</strong></td>
<td><strong>K4.5 Countertops</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
<tr>
<td>Use material that meets one defined attribute for at least 50% of the total square footage or volume of qualifying countertops and substrate assembly.</td>
<td><strong>K4.5 Countertops</strong></td>
<td><strong>K4.5 Countertops</strong></td>
</tr>
<tr>
<td><strong>A4.405.3</strong></td>
<td><strong>A4.405.3 Tier 1 Req:</strong> Not less than 10% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
<td><strong>LEED Eq.7:</strong> see above</td>
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<td><strong>A4.405.4</strong></td>
<td><strong>A4.405.3 Tier 2 Req:</strong> Not less than 15% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
<td><strong>K5. Formaldehyde Emissions in Interior Finish Exceed CARB</strong></td>
</tr>
</tbody>
</table>

**K5. Formaldehyde Emissions in Interior Finish Exceed CARB**

Use composite wood products in the given areas that meet the CARB No Added Formaldehyde (NAF) Threshold. Eligible products include hardwood plywood, particleboard, MDF, and thin MDF (thickness ≤ 8 mm), as well as all furniture and other finished products made with composite wood products.

Reduced formaldehyde materials as defined by the code are required by CALGreen Chapter 4, Section 4.504.5. The GreenPoint Rated measure and the CARB standard are more stringent than the CALGreen measure, as the CALGreen measure only addresses hardwood plywood, particleboard, and MDF. The CALGreen measure does not include furniture or other finished products made of composite wood.

### K5.1 Doors

<table>
<thead>
<tr>
<th>Use products with no added formaldehyde.</th>
<th><strong>A4.504.1:</strong> Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.</th>
<th><strong>LEED Eq.7:</strong> see above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1:</strong> Use composite wood products made with either California Air Resources Board approved no-added formaldehyde (NAF) resins or ultra-low emitting formaldehyde (ULEF) resins.</td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
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<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
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<td><strong>A4.504.5</strong></td>
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<td><strong>A4.504.1</strong></td>
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</tr>
</tbody>
</table>

### K5.2 Cabinets and Countertops

<table>
<thead>
<tr>
<th>Use products with no added formaldehyde.</th>
<th>See above</th>
<th><strong>LEED Eq.7:</strong> see above</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
</tbody>
</table>

### K5.3 Interior Trim and Shelving

<table>
<thead>
<tr>
<th>Use products with no added formaldehyde.</th>
<th>See above</th>
<th><strong>LEED Eq.7:</strong> see above</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
<tr>
<td><strong>A4.504.5</strong></td>
<td><strong>A4.504.1</strong></td>
<td><strong>LEED Eq.7:</strong> see above</td>
</tr>
</tbody>
</table>

### K5.4 Products That Comply With the Health Product Declaration Open Standard

<table>
<thead>
<tr>
<th>A complete Health Product Declaration (HPD) that meets the HPD Full Disclosure of Known Hazards criteria: A cradle-to-cradle (C2C) v2 Basic level or C2C v3 Bronze level certification with a hazard optimization report card</th>
<th>No CALGreen Reference</th>
<th>No CALGreen Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>ID:</strong> 1 No LEED credit reference, Innovation credit from LEED-NC.</td>
<td></td>
</tr>
</tbody>
</table>
### Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

<table>
<thead>
<tr>
<th>GreenPoint Rated SF and MF (Version 6.0)</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>K7. Indoor Air Formaldehyde Level Less Than 27 Parts Per Billion</td>
<td>- After finish materials are installed, conduct a five- to seven-day home test using a passive formaldehyde test kit (following all test instructions), and receive results of less than 27 parts per billion.</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td></td>
<td>- Conduct a test using an equivalent testing method, such as a send-on or impinger. Either the Rater or the builder may complete the test.</td>
<td>- No CALGreen Reference</td>
</tr>
<tr>
<td>K8. Comprehensive Inclusion of Low-Emitting Finishes</td>
<td>Achieve the maximum points possible for all measures related to use of low-emitting materials for paints, interior finishes and flooring. The individual measures required to fulfill this measure are:</td>
<td>4.504.2 Code compliance</td>
</tr>
<tr>
<td></td>
<td>- Measure K2, &quot;Zero-VOC Interior Wall and Ceiling Paints&quot;</td>
<td>4.504.2 Code compliance</td>
</tr>
<tr>
<td></td>
<td>- Measure K3, &quot;Low-VOC Caulks and Adhesives&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Measure K4, &quot;Environmentally Preferable Materials for Interior Finish&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Measure K4.1, &quot;Cabinets&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Measure K4.2, &quot;Interior Trim&quot;</td>
<td></td>
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<td></td>
<td>- Measure K4.3, &quot;Shianing&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Measure K4.4, &quot;Doors&quot;</td>
<td></td>
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<tr>
<td></td>
<td>- Measure K4.5, &quot;Counterops&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Measure L2, &quot;Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential&quot;</td>
<td></td>
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</tr>
<tr>
<td>K9. Durable Cabinets</td>
<td>Build durable cabinets with the following minimum standards:</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td></td>
<td>- All casework is built with plywood and assembled with adhesives and screws.</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td></td>
<td>- Doors are hardwood or plywood.</td>
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</tr>
<tr>
<td></td>
<td>- Full extension drawer slides have ball bearings.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>- Cabinet joints are dovetail, mortise and tenon, or other methods substantially beyond typical construction.</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>- Hinges are metal and attach in two directions to doors and to the face frame.</td>
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</tr>
<tr>
<td>K10. At Least 25% of Interior Furniture Has Environmentally Preferable Attributes</td>
<td>Ensure that, in aggregate, at least 25% (estimated by volume) of interior furniture in all non-residential areas (hallways, lobby, offices, maintenance room, recreation rooms, etc.) have one or more of the following attributes:</td>
<td>A4.405.3 Tier 1 Req: Not less than 10% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
</tr>
<tr>
<td></td>
<td>- Reclaimed, refurbished, rapidly renewable, or made from a minimum of 25% post-consumer recycled-content materials (post-industrial recycled content equals half the rate of post-consumer recycled content)</td>
<td>A4.405.3 Tier 1 Req: Not less than 15% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
</tr>
<tr>
<td></td>
<td>- Scoured and machined locally (within 500 miles)</td>
<td>A4.405.3 Tier 2 Req: Not less than 15% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
</tr>
<tr>
<td></td>
<td>- Made with FSC-certified wood or FSC-certified composite wood</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>- Cradle-To-Cradle certified</td>
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</tr>
<tr>
<td>L. FLOORING</td>
<td>Comply with one or more of the following:</td>
<td>A4.405.3 Tier 1 Req: Not less than 10% of Total Material Cost of project to be recycled content, A4.405.4 Use of building materials from rapidly renewable sources.</td>
</tr>
<tr>
<td></td>
<td>- Use FSC-certified wood material.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>- Use reclaimed or refurbished flooring materials.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>- Use rapidly renewable flooring materials with a renewal cycle of ten years or less.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>- Use flooring materials with a minimum of 10% post-consumer recycled content or 20% post-industrial recycled content.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>- Use exposed concrete as the finished floor.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>- Use locally sourced and fabricated materials.</td>
<td>A4.405.3</td>
</tr>
<tr>
<td></td>
<td>To achieve each point value, the materials must be used in at least the following amount of the floor area:</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>One point: ≥ 25% of the floor area</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>Two points: ≥ 50% of the floor area</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>Three points: ≥ 75% of the floor area</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>Any adhesives used in installing the flooring materials must meet the lower of these two benchmarks:</td>
<td>A4.405.3, A4.405.4</td>
</tr>
<tr>
<td></td>
<td>- Volatile organic compounds (VOCs) less than 70 g/L</td>
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<tr>
<td></td>
<td>- The appropriate VOC standard for the specific product, according to the SCAQMD Rule 1168.</td>
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<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Prepared by DNV GL for StopWaste  February 2014  Page 16
### GreenPoint Rated SF and MF (Version 6.0) | 2013 CALGreen code | LEED for Homes (Version 4)
--- | --- | ---
#### 1.2. Low-Emitting Flooring Meets CDPH 2010 Standard Method—Residential
Use qualifying flooring materials in at least the following amount of the floor area:
- One IAQ/Health point: ≥ 25% of the floor area
- Two IAQ/Health points: ≥ 50% of the floor area
- Three IAQ/Health points: ≥ 75% of the floor area
If the flooring material is carpet, the carpet must meet CRI Green Label plus and the carpet pad must also meet CRI Green label. 
If any adhesives used in installing the flooring materials must meet the appropriate VOC standard for the specific product, according to SCAQMD Rule 1168 (2005 amendments version) standards
Even if it is not certified via testing, hardwood flooring, tile, and exposed concrete floor meets the intent of this measure as long as the finish (i.e., tile or concrete sealer, wax, etc.) does not exceed the appropriate VOC standard for the specific product, according to SCAQMD Rule 1168 (2005 amendments version) standards.

| 3 | A4.405.2, 4.504.3, 4.504.4 | A4.405.2, 4.504.3, 4.504.4 |

#### 3. Durable Flooring
Ensure all flooring in the home is hard surface.

| 1 | No CALGreen Reference | No CALGreen Reference |

#### 4. Thermal Mass Flooring
Use thermal mass flooring for at least 50% of the home’s floor area, in square feet.
The thermal mass assemblies must be at least one inch thick. Qualifying assemblies include concrete or concrete/gypsum slab, cementitious baksetboard, then sat, tile, or stone.

| 1 | No CALGreen Reference | No CALGreen Reference |

### M. APPLIANCES AND LIGHTING
#### M1. ENERGY STAR® Dishwasher
Install a dishwasher that meets or exceeds the ENERGY STAR® standards adopted on January 20, 2012. If the standards change during the GreenPoint Rated cycle, the dishwasher must meet the ENERGY STAR standards current at the time of purchase and installation.

| 1 | A4.303.3 | Install at least one qualified ENERGY STAR appliance with maximum water use as follows:
1. Standard Dishwashers - 4.25 gallons per cycle.
2. Compact Dishwashers - 3.5 gallons per cycle.
3. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. |

#### M2. CEE-Rated Clothes Washer
Install a Tier 2 or Tier 3 qualified clothes washer from the Consortium for Energy Efficiency (CEE) list. Points awarded as follows:
- One Energy point and one Water point: CEE Tier 2
- One Energy point and two Water points: CEE Tier 3
The clothes washer must match these standards at the time of installation in the home. If the standards change during the GreenPoint Rated cycle, the clothes washer must meet the CEE Tier standards current at the time of installation.

| 3 | A4.303.3 | Install at least one qualified ENERGY STAR appliance with maximum water use as follows:
1. Standard Dishwashers - 4.25 gallons per cycle.
2. Compact Dishwashers - 3.5 gallons per cycle.
3. Clothes Washers - water factor of 6 gallons per cubic feet of drum capacity. |

#### M3. Size-Efficient ENERGY STAR Refrigerator
Install an ENERGY STAR certified refrigerator with the following capacity:
- One Energy point: Less than 25 cubic feet
- Two Energy points: Less than 20 cubic feet

| 2 | No CALGreen Reference | No CALGreen Reference |

#### M4. Permanent Centers for Waste Reduction Strategies
##### M4.1 Built-In Recycling Center
Install an assembly with a minimum of two bins (one for trash and one for recycling). The assembly must be built into the kitchen cabinets. Separately located bins or in the garage or utility room do not qualify.

| 1 | No CALGreen Reference | No CALGreen Reference |

##### M4.2 Built-In Composting Center
Install a compost bin with a built-in lid. The bin must be built into the kitchen’s base cabinets. The bin must be odor-resistant and protected from pests. Temporary countertop compost bins, standalone outdoor compost bins, and city food scrap or green waste bins do not qualify.

| 1 | No CALGreen Reference | No CALGreen Reference |

#### M5. Lighting Efficiency
##### M5.1 High-Efficiency Lighting
Install high-efficiency lighting for all permanently installed luminaires in the dwelling and in all common areas of a multifamily dwelling. Lighting controls cannot be used to meet this measure.

| 2 | A4.303.1.1, A4.304.1.1 | GPR requirements more comprehensive |

#### M5.2 Lighting System Designed to BEESNA Foot-candle Standards or Designed by Lighting Consultant
Complete one of the following:
- Install a lighting system that is layered to deliver appropriate ambient, task, and accent lighting that meets the needs of each space in the home
- Hire a certified lighting consultant to design the lighting system to eliminate excess lighting and control glare.

| 2 | No CALGreen Reference | No CALGreen Reference |

#### M6. Central Laundry (for Multifamily program only)
Provide clothes washers and dryers for resident use in common areas.

| 1 | No CALGreen Reference | No CALGreen Reference |
N1. Smart Development

N1.1 Infill Site

Ensure that the project meets all of the following requirements:
1. The site is in an identified infill area.
2. The site is developed on an infill site.

N1.2 Designated Brownfield Site

Ensure that part or all of the site to be developed meets one of the following:
1. The site is in an infill area identified by the local, state, or federal government agency.
2. The site is designated a redevelopment area by the local jurisdiction.
3. The site is identified as a brownfield or is under rehabilitated by CalGreen.

N1.3 Conserve Resources by Increasing Density

Points available based on the density (number of units divided by total project acreage):
- Single-family: 1 point for 15, 2 for 20, 3 for 25, 4 for ≥ 30.
- Multifamily: 1 for 20, 2 for 25, 3 for 30 and 4 for ≥ 30.

N1.4 Cluster Homes for Land Preservation

Ensure that the development has designated open space that has one of the following:
1. Exclusive use by residents (such as private trails and passive recreational area).
2. Limited public low-impact recreational use (no golf courses).
3. Preservation of agricultural land, or protection of wildlife habitat, where provisions have been made to prevent future development of the space.

N1.5 Home Size Efficiency

Up to nine points available for constraining home size per number of bedrooms. See chart on page 108 of guide.

N2. Home(s)/Development Located Within 1/2 Mile of a Major Transit Stop

Locate the dwelling(s) or development within 1/2 mile (public, safe pedestrian path) of a major transit stop. A major transit stop is defined as a light rail, subway, passenger rail, or ferry stop, or at least two existing or planned (and funded) bus lines, constituting 60 or more transit rides per weekday (i.e., combined bus, rail, and ferry) and 40 weekend trips (must be met on both Saturday and Sunday).

N3. Pedestrian and Bicycle Access

N3.1 Pedestrian Access to Services Within 1/2 Mile of Community Services

Five service credits equal a Community Point. Services that earn one credit each: day care, community center, public park, drug store, restaurant, school, library, farmers’ market, after school program and convenience store with fresh meat and produce. Those earning .5 each: bank, place of worship, dry cleaners, hardware, theater/entertainment, fitness/gym, post office, senior care facility, medical/dental, hair care, commercial office or major employer and full scale supermarket.

N3.2 Connection to Pedestrian Pathways

Locate and design the project so that either a publicly accessible outdoor recreation facility at least one acre in area or a publicly accessible indoor recreational facility of at least 25,000 square feet lies within a 1/2 mile walking distance of 90% of new and existing dwelling units and nonresidential building entrances, and is connected to the units and entrances by a dedicated pedestrian pathway or bike path. Outdoor recreation facilities must consist of physical improvements, and may include a usable public park, “tot lots,” swimming pools, and sports fields.

N. COMMUNITY

Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

GreenPoint Rated SF and MF (Version 6.0)

MF: Gearless Elevator

Use gearless (or gearless traction) elevators instead of hydraulic or geared traction systems in all locations.

2013 CALGreen code

1. No CALGreen Reference

LEED for Homes (Version 4)

No LEED credit reference

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<table>
<thead>
<tr>
<th>Measure</th>
<th>LEED for Homes (Version 4)</th>
<th>2013 CALGreen Code</th>
<th>GreenPoint Rated SF and MF (Version 6.0)</th>
</tr>
</thead>
</table>
| N3.3 Traffic Calming Strategies | - | No CALGreen Reference | Installed at least 2 within ¼ mile of the dwelling and evaluated for effectiveness:  
- Designated bicycle lanes on roadways  
- Single travel lanes that are a maximum of ten feet wide  
- Street crossings located less than 350 feet apart  
- Rumble strips, bulb-outs, raised crosswalks, or refuge islands on streets  
- Posted speed limits of 20 mph or less |
| N3.4 Sidewalks Buffered from Roadways and 5-8 Feet Wide | - | No CALGreen Reference | Ensure that all sidewalks have a clear path of travel that is at least five feet wide. Sidewalks in retail areas must be at least eight feet wide. All sidewalks must be buffered from roadways with a protection zone, such as a sidewalk, landscaping, etc. Rows of trees or other fragmented landscaping are acceptable if they are installed such that pedestrians are physically, psychologically, or visually discouraged from traveling directly adjacent to roadways. |
| N3.5 Bicycle Storage for Residents | - | No CALGreen Reference | Install easily accessible, covered, and secure bicycle storage for at least 15% of the total number of residents.  
The storage area must either allow users to lock bicycles to a rack or be a lockable enclosure or indoor area.  
Bicycle storage within units does not count toward this measure unless there is a clearly identifiable, designated, dedicated space for bicycle storage. |
| N3.6 Bicycle Storage for Non-Residents | - | No CALGreen Reference | Install easily accessible, covered, and secure storage for at least 5% of the maximum number of visitors and employees expected at one time during the day, or provide one secure storage area or facility for every 1,000 square feet of non-residential tenant floor area within the development. |
| N3.7 Reduced Parking Capacity | - | No CALGreen Reference | Reduce the number of parking spaces per unit in order to encourage public transportation use and to dedicate more land and construction resources to site amenities such as open space, parks, community rooms, or housing units.  
Points are allocated based on the ratio of parking spaces to the number of residential units, as follows:  
One Community point: 1.5 parking spaces per unit  
Two Community points: 1 parking space per unit |
| N4.1 Public or Semi-Public Outdoor Gathering Places for Residents | - | No CALGreen Reference | Meet one of the following:  
For projects with less than 50 dwelling units per acre, the site must include, in aggregate, at least 50 square feet per home of usable outdoor gathering space. Applicable outdoor common areas include courtyards, sports facilities, play structures, turf areas, rooftop gardens, community gardens, or other outdoor spaces that encourage interaction and spontaneous gathering.  
For sites with 50 dwelling units per acre and between 25 and 50 square feet per unit of usable outdoor gathering space, the site must include natural elements as part of any gathering space. |
| N4.2 Public or Semi-Public Outdoor Gathering Places with Direct Access to Tier 1 Community Services | - | No CALGreen Reference | Create a design with short pathways or adjacent designs that provide direct access between the project's outdoor gathering spaces and at least two Tier 1 community services. Tier 1 community services are defined in measure N3.1, "Pedestrian Access to Services Within ¼ Mile of Community Services" on page 17.  
To qualify as "direct access," the design must feature a close, clear, welcoming, easily accessible, visual, and physical and psychological linkage and connection. |

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### N5. Social Interaction

<table>
<thead>
<tr>
<th>N5.1 Residence Entries with Views to Callers</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Design entrances such that occupants of all heights (including children and people in wheelchairs) can view all visitors. Common practices to achieve this measure include the following:</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- Use clear sidelights or tall windows with low sill heights.</td>
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<tr>
<td>- Use doors with integral clear windows.</td>
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<tr>
<td>- Install one lower and one upper peephole, or equivalent features. The minimum viewing height for the lower peephole is 32 inches.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N5.2 Enhances Visible from Street and/or Other Front Doors</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Install substantive, effective provisions for inhabitants to be able to regularly view activity at the front doors of their neighbors from their own front doors and windows in order to increase community safety and surveillance. Create a layout such that all home and main entrances to buildings are visible from the street and/or from other front doors.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N5.3 Porches Oriented to Street and Public Space</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Orient porches to streets and public spaces to provide natural surveillance. To qualify for this measure, the porch must have at least 100 square feet of usable space and an inviting sitting area that is oriented to the street and public spaces.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N5.4 Social Gathering Space</th>
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</thead>
<tbody>
<tr>
<td>Include (in aggregate) at least 50 square feet of usable outdoor gathering space per dwelling in the development. Applicable outdoor common areas include courtyards, sports facilities, play structures, play areas, rooftops, gardens, community gardens, or other outdoor spaces that encourage interaction and spontaneous gatherings.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

### N6. Passive Solar Design

<table>
<thead>
<tr>
<th>N6.1 Heating Load</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Implement at least four of the following strategies:</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- More north facing windows with a higher solar heat gain coefficient (SHGC)</td>
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<tr>
<td>- Attic insulation with an R-value of at least R-44</td>
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<tr>
<td>- Orientation of windows and vary SHGC for different orientations</td>
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<tr>
<td>- Having a tighter envelope</td>
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<tr>
<td>- Using wall insulation with an R-value of more than R-15 for the cavity and R-4 for the exterior</td>
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<tr>
<td>- Selecting windows for performance</td>
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<thead>
<tr>
<th>N6.2 Cooling Load</th>
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<tbody>
<tr>
<td>Implement at least four of the following strategies:</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- Lower SHGC value and u-factor on the west and south sides</td>
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<tr>
<td>- Shading devices on windows that have excessive heat gain</td>
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<tr>
<td>- Cool roof</td>
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<td></td>
</tr>
<tr>
<td>- Double roof</td>
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<tr>
<td>- Radiant barrier</td>
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<td></td>
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<tr>
<td>- Attic insulation with an R-value of at least R-44</td>
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<td></td>
</tr>
<tr>
<td>- Orientation of windows and varying SHGC for different orientations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Having a tighter envelope</td>
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<td></td>
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<tr>
<td>- Stack ventilation (skylight/window/monitoring)</td>
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</tbody>
</table>

### N7. Adaptable Building

<table>
<thead>
<tr>
<th>N7.1 Universal Design Principles in Units</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Design homes to accommodate disabled persons and anyone’s ease of mobility.</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- at least one prominent entrance has a zero-step clearance.</td>
<td></td>
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<tr>
<td>- doors and hallways a minimum clear passage space</td>
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</tr>
<tr>
<td>- Interior doors must have lever handles.</td>
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<td></td>
</tr>
<tr>
<td>- Multiple installed features in each bathroom. For additional information, refer to CBC section 1143A for fully accessible bathroom specifications.</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N7.2 Full-Function Independent Rental Unit</th>
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</thead>
<tbody>
<tr>
<td>Include an independent rental unit in the project. At a minimum, an independent rental unit must be a fully functioning, rentable apartment with a full bathroom, kitchenette (refrigerator, sink, countertop, and stove), closet, and a private entrance.</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>
Detailed Comparison of Residential Green Building Rating Systems and CALGreen Code in 2014

<table>
<thead>
<tr>
<th>GreenPoint Rated SF and MF (Version 6.0)</th>
<th>2013 CALGreen code</th>
<th>LEED for Homes (Version 4)</th>
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</thead>
<tbody>
<tr>
<td><strong>N6. Affordability</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N6.1 Dedicated Units for Households Making 80% of AMI or Less</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>N6.2 Units with Multiple Bedrooms for Households Making 80% of AMI or Less</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>N6.3 At Least 20% of Units at 120% AMI or Less are For Sale</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>N7. Mixed-Use Developments</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N7.1 Live/Work Units Include a Dedicated Commercial Entrance</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>N7.2 At Least 2% of Development Floor Space Supports Mixed Use</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>N7.3 Half of the Non-Residential Floor Space is Dedicated to Community Service</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>2. OTHER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G1. GreenPoint Rated Checklist in Blueprints</td>
<td>2.410.1.01</td>
<td>GPR requires training specifically on green measures</td>
</tr>
<tr>
<td>G2. Pre-Construction Kickoff Meeting with Rater and Subcontractors</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>G3. Orientation and Training to Occupants—Conduct Educational Walkthroughs</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>G4. Builder's or Developer's Management Staff are Certified Green Building Professionals</td>
<td>2</td>
<td>A4.104.1</td>
</tr>
<tr>
<td>G5. Home System Monitors</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>G6. Green Building Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G6.1 Marketing Green Building</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>G6.2 Green Building Signage</td>
<td>1</td>
<td>No CALGreen Reference</td>
</tr>
</tbody>
</table>

Prepared by DNV GL for StopWaste
February 2014
Page 21
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<thead>
<tr>
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<tbody>
<tr>
<td>O7. Green Appraisal Addendum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the Residential Green and Energy Efficient Addendum for each dwelling that is being certified. The form should be submitted to the homeowner, or the developer/builder if the homeowner is not known.</td>
<td>R</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>O8. Detailed Durability Plan and Third-Party Verification of Plan Implementation</td>
<td></td>
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</tr>
</tbody>
</table>
| - Complete an organized, professional durability evaluation using (at a minimum) the nine risk area categories listed in the Description section of this measure.  
- Develop strategies, designs, and construction procedures/detailed, to respond to all identified issues.  
- Incorporate the strategies and indicate them overtly in the project documentation. | 1 | No CALGreen Reference | No CALGreen Reference | MRFg2, MRFc1 prereq. 1 Moisture durability only, ENERGY STAR for Homes, version 3, water management system builder checklist |
| O9. Residents Are Offered Free or Discounted Transit Passes | | |
| Provide heavily discounted (50% or greater) or free transit passes to all residents for a minimum of one year’s time for transit options that are most valuable to residents. | 2 | No CALGreen Reference | No CALGreen Reference | No LEED credit reference |
| O10. Vandalism Deterrence Practices and Vandalism Management Plan | | |
| Use durable and vandal-resistant materials to inhibit graffiti and other willful or random property damage, and create a deliberate vandalism plan and policy in place. | 1 | No CALGreen Reference | No CALGreen Reference | No LEED credit reference |

P. DESIGN CONSIDERATIONS

| P1. Acoustics: Noise and Vibration Control | | |
| 5 service credits: 1 Community and 1 IAQ/Health point 10 service credits: 1 Community and 1 IAQ/Health point | | |
| Enter the number of Tier 1 practices (1 service credit each) | | |
| - Exterior Noise Reduction.  
- Airborne and Structure-Borne Noise Reduction.  
- Mechanical Ventilation Noise and Vibration Control.  
- Plumbing Noise and Vibration Reduction. | 2 | No CALGreen Reference | No CALGreen Reference | EAg1 prereq. Ventilation noise only |
| Enter the number of Tier 2 practices (1/2 service credit each) | | |
| - Stair Impact Noise Reduction.  
- Floor Squeak Minimization.  
- Trash chute Noise Minimization.  
- Mixed Use Noise and Vibration Reduction. | | |

| P2. Mixed-Use Design Strategies | | |
| | | |
| P2.1 Tenant Improvement Requirements for Build-Outs | | |
| Provide tenants with design and construction information in a Green Tenant Guideline (GTG) that provides a description of the sustainable strategies, products, materials, and services incorporated in the project and delineates the project intent with respect to sustainability goals and objectives for commercial amenity spaces. | 2 | No CALGreen Reference | No CALGreen Reference | No LEED credit reference |
| P2.2 Commercial Loading Area Separated for Residential Area | | |
| - Separation of waste and recycling facilities and waste pickup on site between residential and commercial uses. If a single waste and recycling center is provided, it should be in the commercial area of the project in order to screen the noise and smell of waste collection activities from residents. | 1 | No CALGreen Reference | No CALGreen Reference | No LEED credit reference |
| P2.3 Separate Mechanical and Plumbing Systems | | |
| - Improved insulation between uses in demising walls.  
- Separate residential and commercial metering for all utilities.  
- Properly separate commercial and residential drain, waste, HVAC, and vent systems. | 1 | No CALGreen Reference | No CALGreen Reference | No LEED credit reference |
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<tr>
<td><strong>P3. Commissioning</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-family projects only. For GreenPoint Rated, complete commissioning activities in the design, construction, and warranty phases of the project as listed below related to the following systems:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- HVAC</td>
<td>- HVAC</td>
<td></td>
</tr>
<tr>
<td>- Plumbing systems</td>
<td>- Plumbing systems</td>
<td></td>
</tr>
<tr>
<td>- Lighting, day lighting, and controls</td>
<td>- Lighting, day lighting, and controls</td>
<td></td>
</tr>
<tr>
<td>- Building system controls</td>
<td>- Building system controls</td>
<td></td>
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<tr>
<td>- Irrigation systems</td>
<td>- Irrigation systems</td>
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<tr>
<td>- Renewable energy systems</td>
<td>- Renewable energy systems</td>
<td></td>
</tr>
<tr>
<td>- Auxiliary/backup power systems</td>
<td>- Auxiliary/backup power systems</td>
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<tr>
<td><strong>P3.1 Design Phase</strong></td>
<td></td>
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</tr>
<tr>
<td>The commissioning coordinator assists in identifying the goals of the project and the establishment of the Owner’s Project Requirements (OPR) and the Basis of Design (BoD). A commissioning plan is developed and identify the goals of the commissioning procedure. The commissioning coordinator conducts reviews of plans and equipment submittals, identifies confusing or conflicting issues, and reviews all commissioning goals with all involved parties.</td>
<td>No CALGreen Reference</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td><strong>P3.2 Construction Phase</strong></td>
<td></td>
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</tr>
<tr>
<td>The commissioning coordinator continues to review product and installation submittals and provides an ongoing issues log that can be shared and commented upon by the design team, contractors, and subcontractors. Practices to be completed by the commissioning coordinator for this measure include the following:</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- Obtain and review submittals.</td>
<td>- Obtain and review submittals.</td>
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<tr>
<td>- Coordinate startup activities.</td>
<td>- Coordinate startup activities.</td>
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<tr>
<td>- Monitor the testing and balancing measures completed and reviewed.</td>
<td>- Monitor the testing and balancing measures completed and reviewed.</td>
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<tr>
<td>- Coordinate functional testing.</td>
<td>- Coordinate functional testing.</td>
<td></td>
</tr>
<tr>
<td><strong>P3.3 Post-Construction Phase</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The commissioning coordinator verifies compliance and confirms that all issues identified during the commissioning process have been resolved. Practices to be completed by the commissioning coordinator for this measure include the following:</td>
<td>2</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- Provide training criteria and confirm completion.</td>
<td>- Provide training criteria and confirm completion.</td>
<td></td>
</tr>
<tr>
<td>- Submit commissioning report.</td>
<td>- Submit commissioning report.</td>
<td></td>
</tr>
<tr>
<td>- Conduct warranty review.</td>
<td>- Conduct warranty review.</td>
<td></td>
</tr>
<tr>
<td>- Make provisions to survey residents and tenants after eight to ten-months of occupancy, and report findings.</td>
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<td></td>
</tr>
<tr>
<td><strong>P4. Building Enclosure Testing</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Complete the following:</td>
<td>3</td>
<td>No CALGreen Reference</td>
</tr>
<tr>
<td>- Include building enclosure, flashing, and material installation details in plans and specifications.</td>
<td>- Include building enclosure, flashing, and material installation details in plans and specifications.</td>
<td></td>
</tr>
<tr>
<td>- Complete field testing of the building enclosure to verify performance for air infiltration and water management.</td>
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<td></td>
</tr>
</tbody>
</table>

Total Points Possible 300