

SCOTTSDALE



**GREEN BUILDING
PROGRAM**

One- and Two-Family Residential Green Rating Checklist

New Construction, Major Remodels & Additions

Version 5.0 (January 2017)

Plan Check # _____ Building Permit # _____ **GB Rating** _____

Project or Owner's Name: _____

Project Address: _____

Architect/Designer Name: _____

Builder Name: _____

Use this rating worksheet to qualify projects under the Green Building Program for one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories in height with a separate means of egress (International Residential Code - IRC Section R101.2).

All building system components, materials, and equipment must be installed per code and manufacturer's instructions.

Tier 1 - Baseline GB Designation	Tier 2 - Advanced GB Designation
<ul style="list-style-type: none"> Meet all <u>20 mandatory measures</u> (p. 2 – 6). 	<ul style="list-style-type: none"> Meet all <u>20 mandatory measures</u> (p. 2 – 6). Accumulate at least <u>25 points</u> from the rated options in the checklist (p. 7 - 16).

<u>Advanced Level - Rating Categories and Maximum Available Points</u>					
1. Site	14 pts	6. Lighting and Power	10 pts	11. Doors, Cabinetry, Trim	12 pts
2. Structural Elements	22 pts	7. Plumbing System	16 pts	12. Flooring	15 pts
3. Energy Rating/Renewables	39 pts	8. Roofing	10 pts	13. Solid Waste	12 pts
4. Thermal Envelope	8 pts	9. Exterior Finishes	6 pts	14. House Size	+/- varies
5. HVAC	16 pts	10. Interior Finishes	4 pts	15. Innovative Design	8 pts

TIER 1 – BASELINE MANDATORY MEASURES	LEVEL		VERIFICATION		
SITE	Tier 1	Tier 2	Plan Review	City Insp.	3 rd Party
<p>M1. a) All <u>primary exterior entrances</u> shall be protected from direct summer sun exposures (east, west, south) with recessed or covered elements.</p> <p>b) At least 50% of <u>site hardscape</u> (e.g. walkways, patios, playgrounds, recreation courts, driveways, parking areas) shall be provided with one or more of following:</p> <ol style="list-style-type: none"> 1) <u>Light colored surface</u> with a minimum solar reflectance index (SRI) of 29. 2) <u>Permeable paving system</u> with an open-graded engineered base to accommodate drainage and migration of water (e.g., - permeable and open-cell pavers, pervious concrete, porous asphalt) 3) Stabilized decomposed granite (open-graded uniform-sized aggregate). <p>c) At least 80% of <u>improved landscape</u> shall be Xeriscape with native and/or adapted plants and a non-sprinkler type irrigation system (e.g. – drip or no irrigation).</p> <p>d) At least 50% of <u>roof run-off</u> shall be diverted to landscape areas via roof edge, gutters, downspouts, scuppers, grading, swales and micro-basins.</p> <p>e) Where installed, <u>landscape irrigation systems</u> shall meet the following:</p> <ol style="list-style-type: none"> 1) Shall be divided into zones to regulate water needs based on plant materials, soil, exposure, and other factors (e.g., ground cover, shrubs and trees on separate valves). 2) Shall be provided with a moisture sensor or weather-based smart controller. 	<input type="checkbox"/>		Plan Review		Cert. of Compl.
ENERGY RATING & RENEWABLE ENERGY	Tier 1		Verification		
<p>M2. Comply with one or more of the following <u>energy efficiency rating</u> options:</p> <ol style="list-style-type: none"> a) <u>ENERGY STAR</u> for Homes certification (version 3.1); b) Maximum <u>HERS index</u> rating of 52; c) <u>REScheck</u> compliance report demonstrating a <u>minimum 5% improvement over the 2015 International Energy Conservation Code (IECC)</u>. 	<input type="checkbox"/>		Plan Review		Cert. of Compl.
<p>M3. Provide a <u>solar-ready zone</u> by designating not less than <u>600 sq. ft.</u> of flat roof or sloped roof area that is oriented between 110 degrees and 270 degrees of true north. Provide a 1” electrical conduit from the electrical service panel and/or a 1” insulated water line loop from the water heater storage area to the solar ready zone. <u>Or demonstrate a minimum 15% improvement over 2015 IECC.</u></p>	<input type="checkbox"/>		Plan Review		Cert. of Compl.

THERMAL ENVELOPE		Tier 1	Verification		
M4. Ceiling/roof insulation shall comply with one of the following: a) Provide <u>unventilated attic with spray applied insulation</u> (with adhesive binder) installed at underside of roof sheathing (batt is not acceptable for meeting the purposes of this requirement when installed at the underside of roof sheathing). b) Provide <u>ventilated attic with batt, blown-in or foam insulation</u> installed at bottom of attic space with a <u>radiant barrier</u> at underside of roof sheathing.		☐	Plan Review	City Insp.	Cert. of Compl.
M5. Where permitted by zoning and HOA rules, <u>low-slope roofs</u> (less than or equal to a 2 in 12 pitch) shall have a minimum three-year-aged <u>Solar Reflectance Index</u> (SRI) of 64 as measured in accordance with the Cool Roof Rating Council standard (CRRC-1) or otherwise qualify as an Energy Star certified roof.		☐	Plan Review		Cert. of Compl.
HEATING, COOLING, VENTILATION		Tier 1	Verification		
M6. <u>Cooling and heating systems</u> shall consist of one or more of the following: a) <u>Energy Star certified</u> air-source heat pumps (or air conditioners) with variable speed air blower fan and dual-speed or dual-capacity compressor. b) <u>Ground-source</u> or <u>water-source</u> heat pumps. c) <u>Energy Star certified</u> mini-split heat pumps. d) <u>Hydronic/radiant</u> systems. e) Pre-coolers, indirect evaporative cooling and/or thermal storage.		☐	Plan Review		Cert. of Compl.
M7. HVAC system shall have at least two space-conditioning zones with independent thermostatic controls (studios and one bedroom dwellings are exempt).		☐	Plan Review		Cert. of Compl.
M8. <u>Ducts and air handlers</u> shall be located entirely within the building thermal envelope (excluding underground return ducts) and not inside a garage. a) <u>Duct seams and connections</u> shall be sealed with water-based mastic. b) Ducts shall be insulated with min. <u>R-4.2</u> , where located within a semi-conditioned space such as an unventilated cathedralized attic (insulation at roof deck).		☐	Plan Review	City Insp.	Cert. of Compl.
M9 Every enclosed habitable room with a door (excluding bathrooms, kitchens, closets, pantries, and laundry rooms) shall have a <u>return air path</u> through the use of return air inlets, transfer grills and/or jumper ducts. Exception: Where room to room pressure differences are measured to be 3.0 Pascals or less.			Plan Review	City Insp.	Cert. of Compl.

<p>M10. All <u>exhaust fans installed in bathrooms, powder rooms, toilet rooms and laundry rooms</u> shall be provided with a delay-timer switch that operates the fan for at least 20 minutes after manual activation unless the exhaust fan function as a component of a programed whole-house ventilation system. In lieu of a delay-timer switch, a humidity/condensation control sensor may be used to automatically activate/deactivate fans in bathrooms with a shower, bathtub or spa. All <u>exhaust fans</u> shall meet Energy Star (cfm/w) performance requirements. Each exhaust fan outlet shall be equipped with a motorized or back-draft damper, preferably located near the thermal barrier.</p>	□		Plan Review		Cert. of Compl
<p>M11. Install <u>air filters with a min. MERV rating of 11</u>. Ensure air handlers are designed to maintain adequate pressure and air flow. Filter locations shall be labeled with the design airflow and maximum allowable clean-filter pressure drop. Filters shall be located and installed so as to facilitate access and regular service without special tools. Filter access panels shall include gasket or comparable sealing mechanism and fit snugly against the exposed edge of filter when closed to prevent bypass.</p>	□		Plan Review		Cert. of Compl
<p>M12. <u>Ducts shall be sealed off during construction</u> <u>OR</u> the ducts, coils and blower fan shall be cleaned before occupancy.</p>	□				Cert. of Compl
<p>M13. Install electrical ceiling boxes for <u>Energy Star certified</u> ceiling fans in at least 50% of habitable rooms (e.g. - living room, dining room, study, bedrooms).</p>	□		Plan Review		Cert. of Compl
<p>M14. <u>Garages</u> shall meet one or more of the following: a) Install a carbon monoxide (CO) <u>alarm</u> inside the house/garage entry door. b) Verify (test) that the garage-to-house air barrier will maintain a pressure difference of greater than 45 Pascals while the home maintains a 50 Pascal pressure difference with respect to the outdoors. c) Provide at least a 70 cfm non-ducted exhaust fan or at least a 100 cfm ducted exhaust fan with automatic timer control linked to a light switch, occupant sensor, carbon monoxide sensor, or garage door opening/closing device. The timer shall be set to provide at least three air changes each time the fan is turned on. Balance the exhausted air with outside make-up air through a screened opening. d) Detached or no garage.</p>	□		Plan Review		Cert. of Compl
LIGHTING AND APPLIANCES	Tier 1		Verification		
<p>M15. <u>Installed appliances</u> (refrigerator, freezer, dishwasher, clothes washer, clothes dryer) shall be Energy Star certified (www.energystar.gov/products).</p>	□		Plan Review		Cert. of Compl
PLUMBING	Tier 1		Verification		

<p>M16. In addition to Scottsdale amended fixture flush/flow rates for toilets, lavatory faucets and shower heads, <u>kitchen faucets</u> shall have a max. flow rate of 1.8 gallons per minute. (kitchen faucets may temporarily increase the flow rate to 2.2 gpm when there is an integral faucet default setting for the max. 1.8 gpm). All hot water lines shall be continuously insulated to a R-value of not less than R-3.</p>	<input type="checkbox"/>		Plan Review		Cert. of Compl																												
<p>M17. <u>Water treatment systems.</u></p> <p>a) Where installed, <u>water softeners</u> shall be equipped with <u>demand-initiated regeneration</u> control systems and have a max. water consumption during regeneration of 4 gallons per 1000 grains of hardness removed as measured and certified in accordance with NSF/ANSI 44 (cation exchange water softeners). Such water softeners shall use <u>potassium rather than sodium</u>. Devices that use auto-initiated regeneration on a fixed time schedule will not meet requirements.</p> <p>b) Where installed, <u>reverse osmosis treatment systems</u> shall be listed and labeled in accordance with NSF/ANSI 58 and equipped with an automatic shut off valve that prevents the production of reject water when there is no demand. Such systems shall yield at least 85 gallons of treated water for each 100 gallons processed.</p>	<input type="checkbox"/>		Plan Review		Cert. of Compl																												
INTERIOR FINISHES	Tier 1		Verification																														
<p>M18. <u>Interior paints, coatings, adhesives and sealants</u> shall meet the following VOC (volatile organic compound) content limits in grams/liter:</p> <table border="1" data-bbox="247 846 1236 1482" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Interior Paints, Coatings, Adhesives and Sealants</th> <th style="text-align: left;">VOC Limits grams/liter</th> </tr> </thead> <tbody> <tr> <td>Wall and Ceiling Paints</td> <td>Flat: 50 Nonflat: 100 Nonflat high-gloss: 150</td> </tr> <tr> <td>Primers, Sealers & Undercoaters</td> <td>100</td> </tr> <tr> <td>Floor Coatings</td> <td>100</td> </tr> <tr> <td>Concrete and Masonry Sealers</td> <td>100</td> </tr> <tr> <td>Stains</td> <td>250</td> </tr> <tr> <td>Wood Coatings</td> <td>275</td> </tr> <tr> <td>Carpet and Carpet Pad Adhesives</td> <td>50</td> </tr> <tr> <td>Ceramic Tile Adhesives</td> <td>65</td> </tr> <tr> <td>Wood Flooring Adhesives</td> <td>100</td> </tr> <tr> <td>Drywall and Panel Adhesives</td> <td>50</td> </tr> <tr> <td>Structural Glazing Adhesives</td> <td>100</td> </tr> <tr> <td>Multipurpose Adhesives</td> <td>70</td> </tr> <tr> <td>Architectural Sealants</td> <td>250</td> </tr> </tbody> </table>	Interior Paints, Coatings, Adhesives and Sealants	VOC Limits grams/liter	Wall and Ceiling Paints	Flat: 50 Nonflat: 100 Nonflat high-gloss: 150	Primers, Sealers & Undercoaters	100	Floor Coatings	100	Concrete and Masonry Sealers	100	Stains	250	Wood Coatings	275	Carpet and Carpet Pad Adhesives	50	Ceramic Tile Adhesives	65	Wood Flooring Adhesives	100	Drywall and Panel Adhesives	50	Structural Glazing Adhesives	100	Multipurpose Adhesives	70	Architectural Sealants	250	<input type="checkbox"/>		Plan Review		Cert. of Compl
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SOLID WASTE	Tier 1		Verification		
M19. Provide not less than <u>two 7-gallon minimum pull-out bins</u> for recycling and trash as part of kitchen base cabinets.	<input type="checkbox"/>		Plan Review		Cert. of Compl
OPERATION AND MAINTENANCE	Tier 1		Verification		
M20. <u>A homeowner's manual shall be provided including the following:</u> <ul style="list-style-type: none"> a) City supplied Green Certificate of Occupancy. b) Copy of signed Green Certificate of Compliance. c) List of green building measures (including green building checklist items). d) Product literature and maintenance instructions for materials and finishes. e) Manufacturer's operation and maintenance manuals for equipment, fixtures and appliances. f) Operations & maintenance documentation for whole-house ventilation including: <ul style="list-style-type: none"> i. Date installed and serviced ii. Installer's name and contact information iii. Description of system: ventilation system type, manufacturer, model number, components, operation controls, location iv. Whole-house ventilation worksheet v. Operating instructions and schedule (frequency and duration of each cycle) vi. Performance test: testing protocol and test results including measured airflow rate vii. Required maintenance including but not limited to air filter MERV rating and replacement interval g) Listing and contact information of vendors and contractors. h) A diagram showing the location of safety valves and controls for major building systems including electrical panels, water shut-off valves, sewer diverter valves and clean-outs. 	<input type="checkbox"/>		Plan Review		Cert. of Compl

TIER 2 – ADVANCED RATED OPTIONS		LEVEL		VERIFICATION			Pts
1. Site (90% threshold unless otherwise noted)		Tier 1	Tier 2	Plan Review	City Insp.	3 rd Party	Select
1.1	<u>Topsoil and/or natural desert granite</u> shall be isolated from the disturbed area and preserved in a separate location for re-use to minimize the importing of soil.		<input type="checkbox"/>			Cert. of Compl.	1
1.2	At least 90% of <u>existing on-site native plants</u> including trees shall remain in place or be salvaged.		<input type="checkbox"/>	Plan Review			1
1.3	At least 90% of <u>improved landscaping</u> shall be native and/or Xeriscape (no turfgrass).		<input type="checkbox"/>			Cert. of Compl.	1
1.4	A <u>rainwater collection and storage system</u> shall be sized and installed to supplement the irrigation system based on seasonal irrigation needs, roof collection area, and annual rainfall.		<input type="checkbox"/>			Cert. of Compl.	3
1.5	<u>Non-toxic termite control</u> shall be used in lieu of toxic treatments (e.g., borate treatment, physical barriers, pest-resistant building materials).		<input type="checkbox"/>			Cert. of Compl.	1
1.6	Building design shall incorporate a <u>semi-enclosed courtyard</u> (2 or more sides) with shading provided by trees and/or structures.		<input type="checkbox"/>	Plan Review			3
1.7	<u>Shaded outdoor living spaces</u> shall be provided with an area equal to at least 20% of the first and second floor livable floor area.		<input type="checkbox"/>	Plan Review			3
1.8	At least 90% of <u>outdoor structures and/or hardscape</u> (e.g., retaining walls, fences, landscape planter boxes, ramadas, gazebos, decking, pavers) shall be made from salvaged, reclaimed or recycled content (minimum 25% combined post-consumer & pre-consumer recovered) materials.		<input type="checkbox"/>	Plan Review			1
Sub-total of points selected:							
2. Structural Elements (90% threshold unless otherwise noted)			Tier 2	Verification			Select
2.1	Dwelling has at least one <u>shared common wall</u> within a two-family (duplex) or multiple single-family (townhouse) building as regulated under the International Residential Code (IRC). <u>Additional Points</u> for two shared common walls.		<input type="checkbox"/>	Plan Review			1 1
2.2	<u>Non-asphalt based dampproofing</u> shall be used for basement and/or retaining wall applications (e.g. - zero VOC/water based liquid acrylic, 1 ply membrane, bentonite clay, and cement-based waterproof coating).		<input type="checkbox"/>			Cert. of Compl.	1

<p>2.3 <u>Building structural components</u> shall be constructed of non-solid sawn lumber (metal, engineered lumber, recycled content materials, not including concrete slabs or pre-fabricated wood trusses). <u>Point</u> for at least 75% of roof structure <u>Point</u> for at least 75% of floor structure <u>Point</u> for at least 75% of beams, headers and columns <u>Point</u> for at least 75% of interior framing</p>		□	Plan Review			1 1 1 1
<p>2.4 <u>Lumber shall be certified</u> by the Forest Stewardship Council (FSC) or Sustainable Forest Initiative (SFI) as a sustainable source. <u>Point</u> for at least 75% of floor structure <u>Point</u> for at least 75% of beams, headers and columns <u>Point</u> for at least 75% of interior framing</p>		□			Cert. of Compl.	1 1 1
<p>2.5 <u>No decorative non-structural wood beams</u>, non-load bearing columns or double exterior walls (where 2nd is non-load bearing) shall be used in the building project.</p>		□	Plan Review		Cert. of Compl.	1
<p>2.6 Interior <u>borate treated lumber</u> used for at least 50% of wood structure, not including trusses.</p>		□	Plan Review		Cert. of Compl.	1
<p>2.7 All <u>sub-floor, roof and wall sheathing</u> shall contain no added urea-formaldehyde resins.</p>		□			Cert. of Compl.	1
<p>2.8 An <u>integral wall system</u> shall be used that combines structural and thermal properties, and/or finish. Options include integral insulated masonry, structural insulated panels (SIP), insulated concrete forms (ICF), autoclaved aerated concrete (AAC), insulated sandwich panel (ISP), and solid foam panels. Natural materials such as cob, strawbale, adobe, pumice, thatch, rammed earth, and stone may also qualify. <u>Additional Point</u> for regionally extracted or recovered, processed & manufactured within 500 miles <u>Additional Point</u> for regionally extracted or recovered, processed & manufactured within 250 miles</p>		□	Plan Review		Cert. of Compl.	3 1 1
<p>2.9 <u>Structural elements</u> (beams, lintels, headers, columns, not including concrete slabs or pre-fabricated wood trusses) shall be sourced from regional manufacturers within 250 miles. <u>1 pt. per category</u> (max. 2 pts.)</p>		□			Cert. of Compl.	_____

2.10 Building design shall be based on <u>modular dimensions</u> and utilize one of the following systems: a) Advanced framing techniques (e.g., 2-stud corners, single top plates, stud spacing greater than 16" o.c., alignment of multistory load bearing modules) b) Panelized wall and roof systems	<input type="checkbox"/>	Plan Review		Cert. of Compl.	2
					2
Sub-total of points selected:					
3. Energy Rating and Renewables		Tier 2	Verification		Select
3.1 Improved energy performance: 2 pts. credit for <u>each 5 point reduction below the HERS index of 52 or each 5% improvement over the 2015 IECC</u> (max. 10 pts.)	<input type="checkbox"/>	Plan Review		Cert. of Compl.	_____
3.2 <u>Utility supplied electric power</u> shall be available upon the completion of the floor slab and used during construction. <u>Additional Points</u> for use of solar power or other renewable energy source through the course of construction sufficient for power tools.	<input type="checkbox"/>		City Insp.		1 3
3.3 Provide an <u>on-site photovoltaic (PV) solar system</u> . <u>1 pt. for each 5%</u> of the modeled annual electrical usage (kWh) produced by the PV system (max. 10 pts.)	<input type="checkbox"/>	Plan Review		Cert. of Compl.	_____
3.4 <u>On-site renewable energy system</u> is sized to produce as much energy as the building consumes on an annual basis (zero-net energy).	<input type="checkbox"/>	Plan Review			10
3.5 Provide an on-site <u>battery storage system</u> sized to meet summer peak demand.	<input type="checkbox"/>	Plan Review			5
Sub-total of points selected:					
4. Thermal Envelope		Tier 2	Verification		Select
4.1 <u>Wall insulation</u> . Spray foam – 2 pts. Blown-in with adhesive binder – 1 pt.	<input type="checkbox"/>	Plan Review	City Insp.		_____
4.2 Building shall be insulated with <u>HCFC-free</u> rigid or spray foam insulation.	<input type="checkbox"/>	Plan Review		Cert. of Compl.	1

4.3 Insulation shall have a minimum of <u>25% recycled content</u> (e.g., cellulose, cotton) or is made with 95% bio-based or natural materials (e.g. - straw, cotton).		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
4.4 Building shall be insulated with <u>formaldehyde-free insulation</u> (manufactured without added formaldehyde).		<input type="checkbox"/>			Cert. of Compl.	1
4.5 Where not restricted by planning and zoning regulations, steep-slope roofs (greater than a 2 in 12 pitch) that are directly above cooled conditioned spaces, shall have a minimum initial <u>Solar Reflectance Index (SRI) of 29</u> .		<input type="checkbox"/>	Plan Review		Cert. of Compl.	2
Sub-total of points selected:						
5. Heating, Ventilation and Air Conditioning (HVAC)			Tier 2	Verification		Select
5.1 Provide an <u>energy or heat recovery (ERV or HRV) ventilator</u> that operates automatically or continuously.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	3
5.2 Provide a <u>whole-house ventilative cooling system</u> to cool indoors with outside night air during temperate seasons (spring, early summer, autumn).		<input type="checkbox"/>	Plan Review		Cert. of Compl.	2
5.3 Provide <u>air filter with the following minimum MERV rating</u> or <u>electronic air filter system</u> for each HVAC return. Verify that the HVAC equipment and ductwork is able to accommodate the greater pressure drop on the return air side of the system. <u>MERV 13</u> – 1 pt. <u>Electronic air filter</u> – 2 pts.		<input type="checkbox"/>			Cert. of Compl.	—
5.4 Provide an independent <u>whole-house filtration system</u> with a minimum <u>MERV 12</u> rating or HEPA filter.		<input type="checkbox"/>			Cert. of Compl.	2
5.5 Fenestration openings shall be configured to allow for <u>stack and/or cross ventilation</u> for seasonal cooling. Cross ventilation paths shall not exceed 50 ft.		<input type="checkbox"/>	Plan Review			2
5.6 <u>Central vacuum system</u> shall be provided with outside exhaust.		<input type="checkbox"/>		City Insp.		1
5.7 <u>Radon Protection</u> . a) Test for radon on building site. Radon testing information is available on the US EPA Web site - www.epa.gov/radon/radontest.html b) Design and build with radon-resistant construction techniques as prescribed by US EPA or the 2015 IRC (International Residential Code), Appendix F.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1 2

Sub-total of points selected:							
6. Lighting and Power			Tier 2	Verification		Select	
6.1 At least <u>50% of habitable rooms shall be daylit</u> from at least two sides (windows, clerestories and skylights).			<input type="checkbox"/>	Plan review		2	
6.2 <u>Recessed ceiling lights</u> shall not penetrate the thermal (insulation) barrier.			<input type="checkbox"/>		City Insp.	1	
6.3 One or more of the following <u>energy management tools</u> shall be used to improve building energy performance:			<input type="checkbox"/>	Plan Review		2	
a) <u>Load controller/shedding system</u> designed to minimize the electrical load during peak demand periods by preventing the simultaneous operation of multiple appliances, lighting and/or equipment.					Cert. of Compl.	2	
b) <u>Energy monitoring system</u> (with sub-metering capability) designed to measure and calculate <u>real-time energy usage</u> and costs.						2	
6.4 Building project shall be designed with an <u>on-site alternative-fuel refueling or electric plug-in recharging station</u> for vehicles. Liquid or gaseous fueling facilities shall be separately ventilated or located outdoors. Electric charging stations shall consist of a dedicated <u>120 volt/20amp or 240 volt/40 amp electrical outlets</u> .			<input type="checkbox"/>	Plan Review		Cert. of Compl.	3
Sub-total of points selected:							
7. Plumbing System			Tier 2	Verification		Select	
7.1 Provide a graywater drain line from at least <u>one plumbing fixtures</u> (shower, tub, lavatory faucet, washing machine, utility sink) to discharge in <u>landscape area</u> . The graywater drain line shall be provided with an accessible diverter valve for the option of diverting graywater to building sewer line when not in use.			<input type="checkbox"/>	Plan Review	City Insp.	Cert. of Compl.	3
a) Provide graywater drain connection to <u>two or more plumbing fixtures</u> .						3	
b) Graywater <u>landscape irrigation</u> system in compliance with 2015 IRC Section P3009.						4	
a) Graywater toilet fixture <u>flushing</u> in compliance with 2015 IRC Section P2911.						6	
Sub-total of points selected:							
8. Roofing (90% threshold unless otherwise noted)			Tier 2	Verification		Select	

8.1 A minimum of 50% of roof area shall have <u>recycled or recycled content roof material</u> (e.g. metal, rubber, or salvaged roof tiles). <u>Additional point</u> for 75% or more of roof area.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
8.2 Roof shall be a <u>high durability/low maintenance material</u> such as slate, clay, metal, or fiber-cement (not including concrete tiles unless vented). <u>Additional point</u> if roofing material is recyclable or reusable.		<input type="checkbox"/>	Plan Review	City Insp.		2
8.3 Roof covering material <u>weighs less than 350 lbs/100 sq. ft.</u>		<input type="checkbox"/>	Plan Review			1
8.4 Building project shall be designed with a <u>vegetated roof system</u> . <u>1 pt. for each 25% of roof area</u> (max. 3 pts.).		<input type="checkbox"/>	Plan Review		Cert. of Compl.	—
8.5 Roofing shall have a <u>bitumen underlayment</u> (min. 90 lb. underlayment) or equivalent pliable membrane under concrete, clay, or slate roofing materials.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	2
8.6 Ventilated attics shall be provided with a <u>continuous ridge vent and vented eaves</u> with unrestricted air flow.		<input type="checkbox"/>	Plan Review	City Insp.		2
Sub-total of points selected:						
9. Exterior Finishes (90% threshold unless otherwise noted)		Tier 2	Verification			Select
9.1 <u>Exterior veneers</u> shall be derived from regional sources within 500 miles of jobsite. This includes stone or cultured stone veneers that are regionally quarried or processed.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
9.2 <u>Siding</u> shall be composed of reconstituted or recycled-content material (minimum 50% pre-or post-consumer).		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
9.3 <u>Stucco</u> or siding material shall be integrally colored.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
9.4 <u>Stucco</u> is applied directly to masonry without lath.		<input type="checkbox"/>	Plan Review	City Insp.		1
9.5 <u>Exterior structural materials</u> (e.g. CMU, stabilized adobe, rammed earth, steel) shall be left exposed and in their natural state without a veneer or finish other than a sealer.		<input type="checkbox"/>	Plan Review	City Insp.		1
9.6 <u>Fascia, soffit and trim elements</u> shall be (a) certified lumber (FSC/SFI), (b) made of recycled-content materials (including metal) or (c) engineered wood products such as finger jointed trim, fiberboard, laminated strand lumber or OSB.		<input type="checkbox"/>	Plan Review		Cert. of Compl.	1
Sub-total of points selected:						

10. Interior Finishes (90% threshold unless otherwise noted)		Tier 2	Verification			Select
10.1 <u>Wallboard and/or plasters</u> used in the home shall be made with min. 25% recycled content (e.g. - gypsum board made with industrial by-product gypsum or flue-gas waste product, wheat board made with agricultural by-products)		<input type="checkbox"/>			Cert. of Compl.	2
10.2 <u>Interior paints</u> shall contain no acetone, formaldehyde or ethylene glycol (EG).		<input type="checkbox"/>			Cert. of Compl.	1
10.3 <u>Natural plaster, paints and/or finishes</u> shall contain a minimum of 20% recycled content.		<input type="checkbox"/>			Cert. of Compl.	1
Sub-total of points selected:						
11. Interior Doors, Cabinetry, and Trim (90% threshold unless otherwise noted)		Tier 2	Verification			Select
11.1 <u>Solid wood doors</u> shall be domestic hardwoods or certified by the Forest Stewardship Council (FSC) or the Sustainable Forest Initiative (SFI).		<input type="checkbox"/>			Cert. of Compl.	2
11.2 <u>Composite doors</u> shall contain no added urea-formaldehyde resin.		<input type="checkbox"/>			Cert. of Compl.	1
11.3 <u>Cabinets, counter substrates and built-in furniture</u> shall contain no added urea-formaldehyde resins.		<input type="checkbox"/>			Cert. of Compl.	1
11.4 <u>Exposed substrate materials</u> containing formaldehyde, such as the inside of cabinets and the underside and edge of counters, shall be sealed with a water-based formaldehyde blocking finish.		<input type="checkbox"/>			Cert. of Compl.	1
11.5 <u>Cabinets, counter substrates and built-in furniture</u> shall be made of domestic hardwood from a <u>FSC</u> (Forest Stewardship Council) or <u>SFI</u> (Sustainable Forest Initiative) certified sustainable source and/or consist of a rapidly renewable material (a material that re-generates itself within a ten year period).		<input type="checkbox"/>			Cert. of Compl.	2
11.6 <u>Interior trim</u> shall be made of one or more of the following: (a) finger-jointed/engineered wood; (b) domestic hardwood; (c) FSC- or SFI- certified; (d) rapidly renewable material (bio-based materials that regenerate within 10 years); or (e) min. 20% recycled content with no added urea-formaldehyde resins.		<input type="checkbox"/>			Cert. of Compl.	1

11.7 <u>Countertops</u> shall be made of one or more of the following: (a) min. 20% recycled content material (b) concrete containing no added urea-formaldehyde (c) regionally quarried/processed stone or manufactured tile from within 500 miles of project site.		<input type="checkbox"/>			Cert. of Compl.	2
11.8 <u>No tropical woods</u> shall be used in the entire building project.		<input type="checkbox"/>			Cert. of Compl.	2
Sub-total of points selected:						
12. Flooring		Tier 2	Verification			Select
In order to receive points in this category, the total area of the selected finish floor material must be <u>at least 25%</u> of total conditioned floor area unless otherwise noted.						
12.1 <u>Carpeting and padding</u> shall be certified under the Carpet and Rug Institute's Green Label Plus program, UL Environment or Greenguard Environmental Institute's certification program.		<input type="checkbox"/>			Cert. of Compl.	2
12.2 <u>Resilient flooring</u> shall be certified under the Resilient Floor Covering Institute's FloorScore program, UL Environment or Greenguard Environmental Institute's certification program (e.g.- vinyl, vinyl composite, linoleum, rubber, cork).		<input type="checkbox"/>			Cert. of Compl.	2
12.3 <u>Flooring shall be salvaged</u> (e.g., reclaimed wood) or contain a minimum 20% recycled content (e.g., carpet, pad, tile, sound deadening substrate).		<input type="checkbox"/>			Cert. of Compl.	2
12.4 <u>Flooring shall be made from a rapidly renewable material</u> (bamboo, linoleum, cork, wool or other materials that are regenerated within a <u>10-year cycle</u>).		<input type="checkbox"/>			Cert. of Compl.	2
12.5 <u>Flooring shall be from a FSC</u> (Forest Stewardship Council) or <u>SFI</u> (Sustainable Forest Initiative) certified sustainable source.		<input type="checkbox"/>			Cert. of Compl.	2
12.6 <u>Stone or tile flooring</u> shall be quarried, processed and/or made within 500 miles of site.		<input type="checkbox"/>			Cert. of Compl.	2
12.7 <u>Sealed concrete</u> shall be used as finish floor surface.		<input type="checkbox"/>	Plan Review	City Insp.	Cert. of Compl.	2
12.8 <u>Carpeting</u> shall not be used on more than 25% of conditioned floor area.		<input type="checkbox"/>			Cert. of Compl.	1
Sub-total of points selected:						

13. Solid Waste		Tier 2	Verification			Select
13.1 Provide and implement a <u>construction waste management plan</u> that includes separate recycling bins for recycling or salvaging <u>two or more</u> of the following construction waste materials: cardboard, wood, drywall, foam, metal, concrete, masonry, tile, and/or asphalt. <u>1 pt. for each additional item over the first two</u> that is recycled or salvaged by builder or waste hauler (max. 4 pts.)	<input type="checkbox"/>	Plan Review		Cert. of Compl.	3	
13.2 <u>Excess construction</u> or deconstruction materials shall be <u>donated to a non-profit building organization</u> .	<input type="checkbox"/>			Cert. of Compl.	2	
13.3 A designated area shall be provided for <u>city recycling and trash pick-up containers</u> .	<input type="checkbox"/>	Plan Review		Cert. of Compl.	1	
13.4 A designated area shall be provided for <u>composting organic waste</u> for gardening soil nutrients.	<input type="checkbox"/>	Plan Review		Cert. of Compl.	2	
Sub-total of points selected:						
14. House Size		Tier 2	Verification			Select
Calculate the number of <u>bonus or deductive points</u> based on house size.						
14.1 <u>Dwelling under 3000 sq. ft.</u> of total conditioned space. <u>1 Point</u> for every 100 sq. ft. under 3000 sq. ft.	<input type="checkbox"/>	Plan Review				
14.2 <u>Dwelling over 3500 sq. ft.</u> of total conditioned space. <u>Minus 1 Points</u> for every 250 sq. ft. over 3500 sq. ft.	<input type="checkbox"/>	Plan Review				
Sub-total of points selected:						
15. Innovative Design		Tier 2	Verification			Select
This section recognizes innovative and emerging technologies, practices, and products that fulfill the intentions of the program, but are not addressed in the checklist. Projects can earn up to <u>8 additional points</u> by submitting a written justification to plan review staff for review and determination of awarded points.						
15.1	<input type="checkbox"/>	Plan Review		Cert. of Compl.		

15.2		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.3		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.4		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.5		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.6		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.7		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
15.8		<input type="checkbox"/>	Plan Review		Cert. of Compl.	
Sub-total of points selected:						
TOTAL POINTS (As Submitted)						
TOTAL POINTS (As Approved)						