IRVINE

BUILDING A GREEN IRVINE

HOW TO RETROFIT A GREEN HOME

The Irvine Green Home Retrofit Program has developed criteria for retrofitting homes to become "Green Certified." To qualify as a Green Home, the project must score at least 100 points.

100 POINTS = IRVINE GREEN HOME RETROFIT	150 POINTS = IRVINE GREEN HOME RETROFIT PLUS	250 POINTS = IRVINE GREEN HOME RETROFIT PREMIUM

Applicant: _____ Property Owner: _____

Address: _____ Address: _____

_____ _____

Phone No.: _____ Phone No.: _____

E-mail: _____ E-mail: _____

Contact: _____ Contact: _____

Plan Check #: _____ Date: _____

Project Address (es): _____

_____ Tract No.: _____ Lot No.: _____

Applicant _____

Plan Check # _____

		Possible Points	Targeted Points
1	**SITE**		
1.a	Recycle Job Site Construction & Demolition Waste 65% = 1 point; 75% = 2 points; 80% = 3 points	3	
1.b	Salvage Reusable Building Materials	1	
1.c	Protect Native Soil and Water Quality with Landscape Design	1	
1.d	Landscape design to include Drought-tolerent, Xeriscape, or Native planting - 1 pt per 25% landscaped	4	
1.e	Reuse Materials/Use Recycled Content Materials for Landscape Areas - e.g. break up sidewalk and use as pavers	2	
1.f	Install High-efficiency Irrigation System - 1 pt per gallon - max 4pts	4	
1.g	Replace landscape lights with solar powered lights, replace all other exterior lights for 2 points	2	
1.h	Replace continuous concrete with permeable pavers - 1 pt per 250 SF, max 6 pts	6	
1.i	Install rainwater recovery system	1	
1.j	Install composting station	1	
		25	
2	**CONCRETE**		
2.a	Incorporate Recycled Flyash in Concrete - 30% Recycled Flyash = 1 points; Add 1 point for every 20% increase of flyash, up to 3 points.	3	
2.b	Insulate Foundation/Slab before backfill	2	
		5	
3	**STRUCTURAL FRAME**		
3.a	Substitute Solid Sawn Lumber with Engineered Lumber - 1 pt for 50% usage, 2 pts for 75% usage, 3 pts for 100% usage	3	
3.b	Use FSC Certified Wood for framing - 1 pt for 50% usage, 2 pts for 75% usage, 3 pts for 100% usage	3	
3.c	Use Wood I-Joists for Floors and Ceilings - 2 pts for 90% usage	2	
3.d	Use Web Floor Trusses -2 pts for 90% usage	2	
3.e	Design Energy Heels on Trusses 6” or more	1	
3.f	Use Finger-Jointed Studs for vertical Applications - 2 pts for 90% usage	2	
3.g	Use Engineered Studs for Vertical Applications - 2 pts for 90% usage.	2	
3.h	Apply Advanced Framing Techniques such as Optimal Value Engineering (OVE).	3	
3.i	Use OSB (Oriented Strand Board) a. subfloors (1) b. wall and roof sheating (1)	2	
		20	
4	**EXTERIOR FINISH**		
4.a	Use Sustainable Decking Materials - Recycled content (1) and/or FSC Certified Wood (1)	2	
4.b	Use Treated Wood That Does Not Contain Chromium/Arsenic	1	
4.c	Re-wrap house with appropriate wrap	1	
4.d	Use Fiber-Cement Siding Materials	3	
		7	

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		Possible Points	Targeted Points
5	**PLUMBING**		
5.a	Install Water Heater Jacket	1	
5.b	Insulate Hot and Cold Water Pipes	1	
5.c	Retrofit all Faucets and Showerheads with Flow Reducers a. Faucets (1 pt each) and b. Showerheads (1 pt each)	8	
5.d	Replace Toilets with Ultra-Low Flush Toilets (1 point each)	4	
5.e	Install Chlorine Filter on Showerhead	2	
5.f	Convert Gas to Tankless Water Heater	4	
5.g	Install Water Filtration Units at Faucets (1 point each, up to 2 points)	2	
5.h	Install Whole House Water filtration unit	3	
5.i	Install On-Demand Hot Water Circulation Pump	3	
5.j	Install motion or pedal activated water faucets in the sinks - 1 pt each location	3	
		31	
6	**ELECTRICAL**		
6.a	Install Compact Fluorescent Light Bulbs (CFLs) - 1 pt for every 5 bulbs	3	
6.b	Install LED light bulbs, 1 pt for every 5 bulbs	3	
6.c	Install Lighting Controls per T24 code for new residential requirements (1 pt per room)	4	
6.d	Install High Efficiency Ceiling Fans (1 pt per room)	3	
		13	
7	**APPLIANCES**		
7.a	Install Energy Star Dishwasher	2	
7.b	Install Washing Machine with Water and Energy Conservation Features	3	
7.c	Install Energy Star Refrigerator	5	
7.d	Install Built-In Recycling Center	1	
		11	
8	**INSULATION**		
8.a	Upgrade Insulation a. Walls - 2 and b. Ceilings -2	4	
8.b	Install Floor Insulation over Crawl Space or over attic	4	
8.c	Install Recycled-Content (cotton, wool, cellulose)	3	
8.d	Use Cellulose, cotton or wool Insulation a. Walls - 4 and b. Ceilings - 4	8	
8.e	Alternative Insulation Products (spray-foam, uses toxic isocyanate in application and polymer material which is not degradable) a. Walls - 4 and b. Ceilings - 4	8	
8.f	Pass Blower Door to test house insulation	4	
		31	
9	**WINDOWS**		
9.a	Install Energy-Efficient Windows		
	a. Double-Panel	2	

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		Possible Points	Targeted Points
	b. Low-Emissivity (Low-E)	2	
	c. Low Conductivity Frames	1	
9.b	Install Low Heat Transmission Glazing	1	
9.c	Add light tubes to illuminate dark spaces - 1 pt per light tube	3	
9.d	Replace skylights with remotely controlled electro chromic dimming or remote control blinds - 2 pts per location	6	
		15	
10	**HEATING VENTILATION AND AIR CONDITIONING**		
10.a	Use Duct Mastic on All Duct Joints to confirm sealed	2	
10.b	Install Ductwork within Conditioned Space or insulate existing	3	
10.c	Vent Range Hood to the Outside	2	
10.d	Clean all Ducts Before Occupancy	1	
10.e	Install Solar Attic Fan	2	
10.f	Install Attic Ventilation Systems	1	
10.g	Install Whole House Fan	3	
10.h	Install Sealed Combustion Units		
	a. Furnaces	3	
	b. Water Heaters	3	
10.i	Replace Wall-Mounted Electric and Gas Heaters with Through-the-Wall Heat Pumps	3	
10.j	Install 13 SEER/11 EER or higher AC with a TXV	3	
10.k	Install AC with Non-HCFC Refrigerants or replace refrigerant	2	
10.l	Install 90% Annual Fuel Utilization Efficiency (AFUE) Furnace	2	
10.m	Retrofit Wood Burning Fireplaces or install Radiant heat fireplace for equivalent points on a, b, c		
	a. Install EPA certified wood stoves/inserts	1	
	b. Install/Replace Dampers	1	
	c. Install Airtight Doors	1	
10.n	Install radiant fireplace with heat exchanger so flue gas pipe <120 deg	2	
10.o	Install Zoned, Hydronic Radiant Heating or in floor electric heating - 1 pt per room	6	
10.p	Install High Efficiency Filter (I point per filter)	4	
10.q	Install Heat Recovery Ventilation Unit (HRV)	4	
10.r	Install Separate Garage Exhaust Fan	3	
10.s	Have HERS rating inspection on furnace and AC	2	
10.t	Make HERS rating repairs	2	
		56	
11	**RENEWABLE ENERGY AND ROOFING**		
11.a	Pre-Plumb for Solar Water Heating	2	
11.b	Install Solar Water Heating System	7	
11.c	Pre-Wire for Future Photovoltaic (PV) Installation	2	

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		Possible Points	Targeted Points
11.d	Install Photovoltaic (PV) System (1.2 kw = 6 points, 2.4 kw = 12 points, 3.6 kw = 18 points)	18	
11.e	Select Safe and Durable Roofing Materials	1	
11.f	Install Radiant Barrier	3	
		33	
12	**NATURAL HEATING AND COOLING**		
12.a	Incorporate Passive Solar Heating	5	
12.b	Install Overhangs or Awnings over South Facing Windows	3	
12.c	Plant Deciduous Trees on the West and South Sides	3	
		11	
13	**INDOOR AIR QUALITY AND FINISHES**		
13.a	Use Low/No-VOC Paint	1	
13.b	Use Low VOC, Water-Based Wood Finishes	1	
13.c	Use Low/No VOC Adhesives	1	
13.d	Use Salvaged Materials for Interior Finishes	3	
13.e	Use Engineered Sheet Goods with no added Urea Formaldehyde	2	
13.f	Use Exterior Grade Plywood for Interior Uses	1	
13.g	Seal all Exposed Particleboard or MDF or use no urea formaldehyde product	1	
13.h	Use FSC Certified Materials for Interior Finish	1	
13.i	Use Finger-Jointed or Recycled-Content Trim	1	
13.j	Install Whole House Vacuum System	3	
13.k	Install CO detectors	3	
13.l	Purchase 12” potted plants per 100 SF, 1/4 pt + bonus 1/4 pt for air quality cleaning plants	6	
		24	
14	**FLOORING**		
14.a	Install FSC Certified Wood Flooring	6	
14.b	Use Rapidly Renewable Flooring Materials	2	
14.c	Use Recycled Content Ceramic Tiles	4	
14.d	Install Natural Linoleum in Place of Vinyl	3	
14.e	Use Exposed Concrete as Finished Floor	3	
14.f	Install Recycled Content Carpet with Low VOCs	3	
		21	
	Total Points Available:	**290**	
	Minimum Points for Rating Level **Total Points Project Received:**		
	Minimum Percentage for Rating **Percentage of Maximum Points Received**	**0%**	