

BuiltGreen Project Checklist  
Remodeler



Remodel Line Item	Possible Points		Points
<b>ONE-STAR REQUIREMENTS (25 points minimum)</b>			
	required	All items plus orientation	★
	required	Program Orientation (one time only)	★
	required	Section 1: Build to "Green" Codes & Regulations	★
	required	Earn 15 points from Sections 2 through 5, any items	★
	required	Prepare/post a jobsite recycling plan (Action Item ???)	★
	required	Provide an Operations & Maintenance Kit	★
<b>TWO-STAR REQUIREMENTS (45 points minimum for small remodel; 60 points minimum for remodels that include an addition)</b>			
	required	Meet 1-Star requirements	★
	required	Earn 45 additional points from Sections 2 through 5, with at least 3 points from each Section	★
	required	Attend a Built Green™ approved workshop within past 12 months prior to certification	★
<b>THREE-STAR REQUIREMENTS (100 points minimum for remodel; 130 points minimum for remodels that include an addition)</b>			
	required	Meet 2-Star requirements plus 70 additional points (doesn't make sense)	★
	NEW req	Achieve % of minimum point requirements in each section???	★
<b>FOUR-STAR REQUIREMENTS (250 points minimum for remodel; 280 points minimum for remodels that include an addition)</b>			
	required	Meet 3-Star requirements plus point minimum	★
	required	3 <sup>rd</sup> party verification required (See reference)	★
Site & Water	required	No zinc galvanized ridge caps, copper flashing or copper wires for moss prevention (See action item 2-39).	★
Site & Water	required	Landscape with plants appropriate for site topography and soil types, emphasizing use of plants with low watering requirements [drought tolerant] (See action item 6-6).	★
Site & Water	required	Select bathroom faucets an/or aerators that restrict flow to 1.10 gpm.	★
Energy	required	Final project must perform 15% above energy code (action item??)	★
IAQ	required	Use low toxic/low VOC paint on all major surfaces (except for PVA primer which is currently not available) (See action item 4-25)	★
IAQ	required	Ventilate with box fans in windows blowing out (or Director approved alternative) during drywall sanding and new wet finish applications	★
Materials	required	Practice waste prevention and recycling, and buy recycled products (kind of open?? - better credit item)	★
	required	<b>Choose one of the following:</b>	★
IAQ		Provide built in walk-off mat and shoe storage area	★
IAQ		Use plywood and composites of exterior grade or with no added urea formaldehyde for interior uses	★
IAQ		Develop a written healthy jobsite plan and educate workers on implementation (see handbook for more information and examples)	★
IAQ		Use high efficiency pleated filter of MERV 12 or better, or HEPA	★
IAQ		Install sealed combustion heating and hot water equipment	★
<b>FIVE-STAR REQUIREMENTS (400 points minimum for remodel; 430 points minimum for remodel that includes an addition)</b>			
	required	Meet 4-Star requirements plus point minimum	★
Site & Water	required	Amend disturbed soil with compost to a depth of 10 to 12 inches to restore soil environmental functions	★
Site & Water	required	Use pervious materials for at least one-third of total area for driveways, walkways, and patios	★
Site & Water	required	Limit use of turf grass to 25% of landscaped area	★
Site & Water	required	Preserve existing native vegetation as landscaping	★
Site & Water	required	Retain 30% of trees on site	★
Energy	required	Minimum R-26 wall	★
Energy	required	Maximum average U-value for all windows of .30.	★
Energy	required	Advanced framing with double top plates	★
Energy	required	Pre-wire for future PV	★
Energy	required	75% minimum <i>Energy Star</i> light fixtures.	★
Energy	required	<i>Alternate:</i> In Lieu of above energy requirements demonstrate home energy performance 30% beyond code per action item 3-1.	★
IAQ	required	If there is an attached garage, air seal it from the house and exhaust with an automatic or timer controlled fan	★
IAQ	required	Use plywood and composites of exterior grade or formaldehyde free (for interior use)	★
Materials	required	Achieve a minimum recycling rate of 70% of waste by weight.	★
Materials	required	Use a minimum of 10 materials with recycled content.	★

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SECTION ONE: CODES & REGULATIONS			
1-1	required	Meet Washington State Water Use Efficiency Standards	★
1-2	required	Meet Stormwater/Site Development Standards	★
1-3	required	Meet Washington State Energy Code	★
1-4	required	Meet Washington State Ventilation/Indoor Air Quality Code	★
1-5	required	Provide Owner with Operations and Maintenance Kit	★
1-6	required	Prohibit Burying Construction Waste	★
1-7	required	Do Not Dispose of Topsoil in Lowlands or Wetlands	★
1-8	required	When Construction is Complete, Leave No Part of the Disturbed Site Uncovered or Unstabilized	★
1-9	required	Dispose of Non-Recyclable Hazardous Waste at Legally Permitted Facilities	★
1-10	required	Prepare Jobsite Recycling Plan and Post On Site	★
1-11	required	2 - 3 Stars: Install CO Detector (Hardwire Preferred) for All Houses with a Combustion Devise or Attached Garage	★
1-12	required	4 - 5 Stars: Install CO Detector (Hardwire Required) for All Houses with a Combustion Devise or Attached Garage	★
1-13	required	Conform to the House Size Matrix (Square Feet Limit Refers to Conditioned Space)	★
1-14	required	Follow "best practices" for removal/disposal of asbestos-containing materials	★
1-15	required	Follow "best practices" for removal/disposal of lead-containing materials	★
<b>CODES SECTION TOTALS</b>			<b>ALL</b>
SECTION TWO: SITE AND WATER			
2-1	5	Comprehensive Site Assessment and Plan	5
2-2	5	Comprehensive Water Assessment and Plan	5
SITE PROTECTION			
Protect Site's Natural Features			
2-3	3	Avoid Soil Compaction by Limiting Heavy Equipment Use	3
2-4	3	Preserve existing native vegetation as landscaping (excluding trees)	
2-5	3	Replant or donate removed vegetation for immediate reuse, or place in established heeling bed fro reuse on site or donation	
2-6	2	Use Plants Donated from Another Site	
2-7	2	Take extra precautions to protect trees during construction	
2-8	5	Bring in a consulting arborist to evaluate tree protection on-site and carry out instructions	5
2-9	2	If Building Near Wetlands, Shorelines, Bluffs, and Other Critical Areas, Preserve & Protect Beyond Code	2
2-10	4	Retain 100 % of existing healthy trees on site	
2-11	4	If building in an ECA, build away from the protected area.	
2-12	3-10	Use Low Impact Foundation System, Such as PIN Systems or Post and Pier, for at least 50% of the Foundation	
2-13	1	Locate dumpster drop to minimize site impact	1
<b>Subtotal</b>			<b>21</b>
Protect Natural Processes On-Site			
2-14	1	Use compost to stabilize disturbed slopes	1
2-15	4	Amend disturbed soil to a depth of 10 to 12 inches to restore soil environmental functions	4
2-16	3	Grind landclearing wood and stumps for reuse on site	3
2-17		Use pervious materials for at least one-third of total area for driveways, walkways, patios	5
2-18	5	No increase to the existing building footprint	5
2-19	5	Reduce existing building footprint by 100 square feet	
2-20		Bonus Points: Install vegetated roof system (e.g. eco-roof) to reduce impervious surface	
2-21	4	Use a Water Management System That Allows Groundwater to Recharge	4
2-22	2	Remove existing plants listed as noxious or obnoxious weeds as defined by WA State agricultural extension office	
2-23	3	Establish landscape as a backyard wildlife sanctuary through the WA Dept. of Fish and Wildlife	
<b>Subtotal</b>			<b>22</b>
Impervious Surfaces			
2-24	7	Design to Achieve Effective Impervious Surface Equivalent to 0% for 5 Acres and Above; <10% for Less Than 5 Acres	7
2-25	3	Use Pervious Materials for At Least One-Third of Total Area for Driveways, Walkways, Patios or redirect sheet flow to onsite infiltration	3
2-26	5-15	Bonus Points: Install Vegetated Roof System of at least 200 sq feet or percentage (e.g. Green-Roof) to Reduce Impervious Surface	
2-27	3	Reduce existing impervious hardscape surfaces by 50% or more	
2-28	10	Eliminate all impervious surfaces outside building footprint	
<b>Subtotal</b>			<b>10</b>
Eliminate Water Pollutants			

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2-29	1	Take extra care to establish and maintain a single stabilized construction entrance (quarry spall or crushed rock) or use existing driveway	1
2-30	1	Wash out concrete trucks in slab or pavement subbase areas	1
2-36	3	Establish and post clean up procedures for spills to prevent illegal discharges. Conduct sub-contractor orientation to promote good jobsite housekeeping and reduce hazardous waste issues.	3
2-37	2	Use slow-release organic fertilizers to establish vegetation	2
2-38	2	Use less toxic form releasers	2
2-39	2	Do not use pressure treated wood in landscaping	2
2-40	2	No clearing or grading during wet weather months (dates: October 31 to March 1???)	2
2-41	1	No copper on external structure of on-site	1
2-42	3	If disturbing top soil, set aside and protect for re-use on site	3
2-43	2	Construct Tire Wash, Establish and Post Clean Up Protocol for Tire Wash	
		<b>Subtotal</b>	<b>17</b>
<b>DESIGN ALTERNATIVES</b>			
2-44	10	Bonus Points: Add a permitted accessory dwelling unit or living quarters	10
2-45	4	Bonus Points: Provide a new covered front porch of at least 50 square feet	1
2-46	3	Provide public amenities adjacent to streets, such as a bench, shade or fruit trees, wildflower garden, art, or make environmental features visible from the street.	
2-47	2-5	Bonus Points: If adding a garage, minimize garage size	2
		<b>Subtotal</b>	<b>13</b>
<b>WATER PROTECTION</b>			
<b>Outdoor Conservation</b>			
2-48		Mulch Landscape Beds with 2 Inches of Organic Mulch	
2-49	5	Reduce existing turf grass by 50% or more and replace with drought tolerant or native landscaping	5
2-50	10	Bonus Points: No turf grass	10
2-51	5	Landscape with Plants Appropriate for Site Topography and Soils, Emphasizing Use of drought tolerant Plants or plants with Low Watering Requirements	
2-52	2	If installing an irrigation system, provide a Water Budget, test irrigation system to verify coverage and flow rates, and provide a Landscape Maintenance Plan to home owners	
2-53	2	Plumb for graywater or rain water for irrigation	2
2-54	2	Sub-Surface or Drip Systems Used for Irrigation	
2-55	10	Install Landscaping That Requires No Potable Water for Irrigation Whatsoever After Initial Establishment Period (Approximately 1 to 3 Years)	10
2-56	5-15	Install Rainwater Collection System (Cistern) for Reuse (minimum of 500 gallons)	15
<b>Points</b>		Points of rainwater collection system: recommendation by David McDonald to limit max to 10 points	
<b>Points</b>		Need to compare points for using irrigation well, to not using an irrigation system at all	
		<b>Subtotal</b>	<b>42</b>
<b>Indoor Conservation</b>			
2-57	1	Select Bathroom Faucets with GPM Less than Code	1
2-58	1	Select Kitchen Faucets with GPM Less than Code	1
2-59	2-8	Install dual flush or flush star qualified toilet	6
2-60	10	Install composting toilets	
2-61	3	Bonus Points: Stub-In Plumbing to Use Greywater or rainwater for Toilet Flushing	
2-62	10	Use Graywater or rainwater for internal potable water substitute	
2-63	2	Install a recirculating pump or gravity based system for domestic hot water	
2-64		Use a recirculating pump with a "home run" manifold water pipe configuration	
		<b>Subtotal</b>	<b>8</b>
<b>Eliminate Water Pollutants</b>			
2-65	1	Educate Owners/Tenants About Fish-Friendly Moss Control	1
2-66	2	Provide Food Waste Chutes and Compost or Worm Bins Instead of a Food Garbage Disposal	
2-67	1	Remove existing undersink garbage disposal	
		<b>Subtotal</b>	<b>1</b>
<b>ENVIRONMENTAL DESIGN CONCEPTS</b>			
2-68	3	Retain or install continuous forested and native vegetation "buffers" adjacent to lot edges, fencelines, waterways, wetlands, and steep slopes.	3
2-69	2	Take part in the city re-tree program	
2-70		Rough-in a dedicated circuit to garage to futurize for plug in electric/hybrid car	
2-71	3	Install a special bike storage area or other design features to encourage bike ownership & use	
		<b>Subtotal</b>	<b>3</b>
<b>Extra Credit for Site and Water</b>			
2-72		Extra Credit for Innovation in Site and Water	
		<b>Subtotal</b>	<b>0</b>

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#REF!		SITE & WATER SECTION TOTALS	137
<b>SECTION THREE: ENERGY EFFICIENCY</b>			
<b>ENVELOPE</b>			
<b>Thermal Performance</b>			
3-1	10-70	Document envelope improvements beyond code using approved modeling software (component	5
3-2	5	Home performance test prior to initiation of construction	
3-3	1 + research	Install a minimum of R-10 rigid Insulation beneath any slabs on grade (exclusive to additions)	
3-4	2	Install no skylights	2
3-5	50	Build a zero net energy home that draws zero outside power or fuel on a net annual basis	
<b>Subtotal</b>			<b>7</b>
<b>Air Sealing</b>			
3-6	2	Inspect and install weatherstripping	2
3-7		Airtight Drywall Approach for framing structures	
3-8	3	Use airtight building method, such as SIP, ICF, or Strawbale (x points for min of 40%; x points for use in whole house)	
3-9	5-10	Blower Door Test Results Better than 0.30 ACH (5 points), 0.25 ACH (10 points)	10
<b>Subtotal</b>			<b>12</b>
<b>Reduce Thermal Bridging</b>			
3-10		Add wall insulation	4
3-11	4???	Add attic insulation	4
3-12		Add floor insulation	
3-13	1-3	Insulate entire accessible attic to minimum of R-48	
3-14	1	Fully insulate at interior/exterior wall intersection in addition/remodel structures	1
3-15	1	Use energy heels of 6 in. or more on trusses to allow added insulation over top plate	
3-16	3	Use continuous rigid insulation on interior or as exterior sheathing	3
3-17	3	Use NFRC certified windows with a U-factor of 0.32 or better for new or replaced windows	3
<b>Subtotal</b>			<b>15</b>
<b>Solar Design Features</b>			
3-18	4-10	Demonstrate a reduction in space conditioning energy, using approved energy modeling software	
3-19	6	Passive Solar Design, Basic Features Installed	
3-20	12	Passive Solar Design, Advanced Features Installed	
3-21	3	Model solar design features using approved modeling software	
3-22	4	Retain (or add) deciduous trees South and West of house	
<b>Subtotal</b>			<b>0</b>
<b>HEATING/COOLING</b>			
<b>Distribution</b>			
3-23	1	Centrally locate heating / cooling system to reduce the size of the distribution system	1
3-24	3-10	Performance test duct for air leakage meets third-party review and certification achieving less than 10%, 6%, or 3% loss of floor area to total flow	
3-25	2	Use "Home Energy Yardstick" from Energy Star	
3-26	5	Locate heating / cooling equipment, ducts and the distribution system inside the conditioned space	5
	<b>Points</b>	<b>Tier based on what is accomplished.</b>	
3-27	1	Properly install one or more Energy-Star rated ceiling fan(s)	
3-28	2	If existing duct insulation is less than R-6, insulate ducts to R-11	
3-29	4	Use advanced sealing of all ducts using low-toxic mastic (including existing ductwork, new ductwork, and furnace box)	
3-30	2	Use advanced sealing for all new ducts and all existing ducts in non-heated space	
3-31	5 or 10	Install Hydronic Heating Systems, Point Range Based on Boiler Efficiency	10
3-32	2-4	Install only rigid ductwork	
3-33	3	Install individual thermostatically controlled zones for radiant systems	
<b>Subtotal</b>			<b>16</b>
<b>Heating / Cooling</b>			
3-34	2	Tune up existing heating system	
3-35	5	Size heating/cooling system using manual J or D, or other approved software (REM.Rate, Energy Gauge, HVI duct plan)	
3-36	3	Select Energy Star® heating/cooling equipment or documented equivalent	3
3-37	2-3	If installing a furnace, install with a variable speed fan (Extra points for ECM)	
3-38	<b>Research</b>	Install EPA certified biofuel appliances	
3-39	3	Install an AFUE rated sealed combustion direct vent natural gas hearth product as part of an integrated heating system	
3-40	5	No air conditioner	5

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3-41	3-4	Select high efficiency heat pumps instead of electric heat (0.85-0.9)	
3-42	10	Install geothermal heat pumps	
3-43	2	Retrofit existing wood fireplace with EPA certified fireplace insert	
3-44	4	Remove existing wood burning fireplace and do not replace	
3-45	5	Convert all heating to natural gas	5
		<b>Subtotal</b>	<b>13</b>
<b>Controls</b>			
3-46		Install thermostat with on/off-switch or smart timer for furnace fan to circulate air	
3-47	2	Install 60-minute timers or humidistat for bathroom and laundry room fans	
3-48	2	Install programmable thermostats and pre-program	2
		<b>Subtotal</b>	<b>2</b>
<b>Heat Recovery</b>			
3-49	3	Install a heat recovery ventilator	
		<b>Subtotal</b>	<b>0</b>
<b>WATER HEATING</b>			
<b>Distribution</b>			
3-50	2	Locate water heater within 20 pipe feet of highest use	2
3-51	1	Insulate all hot water pipes and install cold inlet heat traps on hot water heater	
		<b>Subtotal</b>	<b>2</b>
<b>Drainwater Heat Recovery</b>			
3-52	1	Drainwater heat recovery system (DHR)	
		<b>Subtotal</b>	<b>0</b>
<b>Water Heating</b>			
3-53	1	If not replacing, inspect and insulate existing hot water heater	
3-54	2	Locate and install passive or on-demand hot water supply close to end hot water use that is farthest from existing water heater	
3-55	2	Install Tankless Hot Water Heater that meets an energy factor of 0.83	
3-56	research	Upgrade Gas or Propane Water Heater Efficiency to EF 0.62, 0.83, or 0.90	7
3-57	2	Install water heater inside the heated space (electric, direct vent, or sealed venting only)	2
3-58	2	Upgrade electric water heater to exhaust air heat pump water heater or de-superheater (EF 1.9)	
3-59	2	Replace electric water heater with Energy-Star rated water heating equipment	
3-60	1	Install a timer to regulate standby hot water loss in water heater	
3-61	1	Install small diameter PEX pipe	
		<b>Subtotal</b>	<b>9</b>
<b>LIGHTING</b>			
<b>Natural Light</b>			
3-62		Use light-colored interior finishes	1
3-63		Use clerestory for natural lighting in addition/remodel	
3-64		Use light tubes for natural lighting and to reduce electric lighting	
		<b>Subtotal</b>	<b>1</b>
<b>Efficient Lighting</b>			
3-65	4	Lighting avg is 1.1 watts/sq ft. with all exterior, garage, closet, utility room and under counter lighting are CFLs or LEDs.	
3-66	1	Solar powered walkway or outdoor area lighting	
3-67	1	Furnish four compact fluorescent light or LED bulbs to owners	1
3-68	2-5	Use compact fluorescent bulbs, ballast, or fixtures; or LEDs in Three High-Use Locations	5
3-69	1-10	Install hard-wired fluorescent fixtures, with 1 point for each 10% of Lighting	9
3-70	3	Install photo cells, timers, and/or motion detectors (interior)	
3-71	2	Install photo cells, timers, motion detectors (exterior)	2
3-72	1	Use Air Lock Can Lights	1
3-73	3	Bonus Points: No recessed can lights	
		<b>Subtotal</b>	
<b>Appliances</b>			
3-74	1	Provide an outdoor clothesline or drying rack	
3-75	research	Install gas clothes dryer	
3-76	1-3	Install front loading Energy Star® washing machine	
3-77	1	Install an Energy Star® dishwasher	1
3-78	2	Install Energy Star® refrigerator	2
3-79	2	Install gas stove/cooktop (requires a Carbon Monoxide detector) or induction electric cooktop	
3-80	2	Install Energy Star® exhaust fan	2
		<b>Subtotal</b>	<b>25</b>
<b>EFFICIENT DESIGN</b>			
3-81		Use building and landscaping plans that reduce heating/cooling loads naturally	
		<b>Subtotal</b>	<b>0</b>
<b>ALTERNATIVE ENERGY</b>			

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3-82	3	Enroll the project in the local utility's renewable energy program	
3-83	10	Solar Water Heating System Sized to Provide a Minimum of 40% Hot Water Designed Energy Use	
3-84	2	Pre-Pipe for Solar Water Heater	
3-85	5-25	House Powered by Photovoltaic	
3-86	2	Pre-wire or pre-install conduit for future photovoltaic use	
3-87	5-25	Install Innovative Non-Solar Renewable Power Systems That Produce a Minimum of 15%, 30%, or 50% of the House's Total Annual Energy	
		<b>Subtotal</b>	<b>0</b>
<b>Extra Credit for Energy Efficiency</b>			
3-88		Extra Credit for Innovation in Energy Efficiency	
		<b>Subtotal</b>	<b>0</b>
	<b>#REF!</b>	<b>ENERGY EFFICIENCY SECTION TOTALS</b>	<b>86</b>
<b>SECTION 4: HEALTH AND INDOOR AIR QUALITY</b>			
<b>OVERALL</b>			
4-1	5	Assist homeowners with chemical sensitivities to identify preferred IAQ measures and finishes	5
4-2	5	Project Team Member to Have Taken American Lung Association (ALA) of Washington "Health House Professional Training" Course or Other IAQ Class With 8 Hours of Curriculum Minimum	
4-3		Dan's credit to replace certifying under ALA Health House Program (SF 4-3)	
4-4	4	Provide Homeowners With Maintenance Checklists (Furnace Filters, Under the Fridge, Etc.)	
		<b>Subtotal</b>	<b>0</b>
<b>JOB-SITE OPERATIONS</b>			
4-5	1	Educate workers and subs in using VOC-safe masks when applying VOC containing wet products and N-95 dust masks when generating dust	
4-6	3-5	Take measures during construction operations to avoid moisture problems later	4
4-7	2-4	Take measures to avoid Dust issues during construction	2
4-8	2	Protect exterior building components from water or moisture damage; address any existing problems	
4-9	1	Provide weather protection for stored materials	1
4-10	3	Effective ventilation with approved method after each new finish is applied	
4-11	2	No use of unvented combustion heaters during construction	2
4-12	2	Clean ductwork and furnace thoroughly at job completion	
4-13	4	Train subs in implementing a healthy building job-site plan for the project	4
		<b>Subtotal</b>	<b>13</b>
<b>LAYOUT AND MATERIAL SELECTION</b>			
4-14	1	If using carpet, specify products certified by third-party for good indoor air quality	
4-15	5 or 15	Add no new carpet in addition/remodel	15
4-16	2	If using carpet, install by dry method	2
4-17	5	Detached or no garage, or garage air-sealed from house with automatic exhaust fan	5
4-18	1	If installing and/or replacing carpeting, install natural fiber carpet (e.g. jute, sisal, wool)	
4-19	5	Use only low-VOC/low-toxic interior paints and finishes for all surface areas (including doors, windows, trim)	5
4-20	1	Use Pre-Finished Flooring	
4-21	1	Do not install products with brominated flame retardant	1
4-22	2-6	Optimize Air Quality in Family Bedrooms to Basic or Advanced Level (Perform All Measures Listed in Handbook for Basic or Advanced Level)	
4-23	3	If using fiberglass insulation, use formaldehyde-free fiberglass insulation	3
4-24	3	Use Urea Formaldehyde-Free Insulation or Greenguard Certified Product	
4-25	4	Insulate with something other than fiberglass insulation	
4-26		Inside the House, Use Only Low-VOC, Low-Toxic, Water-Based, Solvent-Free Sealers, Grouts, Mortars, Caulks, Adhesives, Stains, Pigments, and Additives for:	
4-26a	2	Tile and Grout	2
4-26b	2	Framing	2
4-26c	4	Flooring (all)	4
4-26d	2	Plumbing	2
4-26e	2	HVAC	
4-26f	2	Insulation	2
4-26g	2	Drywall	2
4-27	3	Use Plywood and Composites of Exterior Grade or With No Added Urea Formaldehyde (for subfloor use)	3
4-28	4	Install Cabinets Made with No Added Urea Formaldehyde Board and Low-Toxic Finish	4
4-29	4	Use Only Shelving, Window Trims, Door Trim, Base Molding, Etc., With No Added Urea Formaldehyde	4

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4-30	3	Use Only Low-VOC/Low-Toxic Interior Paints and Finishes for Large Surface Areas	3
4-31	1	Use Only Paints and Finishes Without Cadmium or Lead	1
		<b>Subtotal</b>	<b>60</b>
<b>MOISTURE CONTROL</b>			
4-32	1	Grade to drain away from home	1
4-33	2	Verify seal at doors, windows, and plumbing and electrical penetrations against moisture and air	2
4-34	3	Use roof gutters to drain out onto splash blocks or approved system to drain water away from building; <b>COMBINED</b> with: Install A Rigid Perforated Footing Drain at Foundation Perimeter, Not Connected to Roof Drain System; Combined with (SF4-39 - 3 points): If replacing roof or gutting Prepare a Roof Water Management Plan Showing Best Practices for the Site Soils and Storm Water Infrastructure	
4-35	1	New roofs are pitched and flashed properly	2
4-36	3	Envelope Inspection at Pre-Installation by a Qualified Professional	
4-37	2	If installing new Slab On Grade, Upgrade Under Slab Moisture Barrier Beyond Code to 10 mil Minimum; Minimum of 10 mil Poly in Crawl Spaces with Sealed Seams and Sealed Perimeter	
4-38	2	Roof Overhangs Are at Least 24" Inches	
4-39	2	Protect Windows and Doors on Tall Walls with Additional Overhang Protection	
4-40	1-6	For any newly sided wall Install a Drain Plane for Walls Between Siding, Trim, and Building Paper or House Wrap (1 point per every 200 sf)	6
4-41	2-8	Install a sloped sill pan with end dams and back dams for windows, and back dams for all exterior doors exposed to the weather (points based on % of total)	6
4-42	3	Install Metal Flashing at All Windows and at heads of all doors	3
4-43	3	Hose Test First Installed Windows to Verify Resistance to Wind Driven Rain	
4-44	2	Install Working Vent System to Eliminate Potential Moisture, Methane, and Radon Problems in Crawl Space or Under Slabs on Grade	
4-45	3	Show and Build Moisture Management Details for all new or replaced Below Grade Walls Beyond Code, Such as Dimple Drainage Mat at Exterior Face and Capillary Breaks	
4-46	2	Perform Calcium Chloride Moisture Test on All new Slabs on Grade Prior to Installing Any Finish Flooring in Conformance with Product Warranties	2
4-47	2	Have Crawl Space, Attic, and Garage Building Performance Tested for Disconnection to the Living Space of House	2
4-48	1	Addition wrapped with an exterior air infiltration barrier to manufacturer's specifications	
4-49	3	Comprehensive crawl space improvement	
4-50	7	Completely conditioned crawlspace	
		<b>Subtotal</b>	<b>24</b>
<b>AIR DISTRIBUTION AND FILTRATION</b>			
4-51	1	Install return-air ducts in new bedrooms	1
4-52	1	Install ducting/damper for fresh air intake	
4-53	3	"Tune up" air distribution system as outlined in Handbook	
4-54	1	Balance airflow system based on filter being used	
4-55	1	Install furnace and/or duct-mounted air cleaner or high efficiency air filter (non-electronic)	
4-56	1	Install central vacuum, exhausted to outside	
4-57	2	Provide for cross ventilation using operable windows in addition/remodel	2
4-58	Req	Install CO2 detector	
4-59	2	Do Not Install Electronic, Metal Mesh, Horse Hair, or Non-Pleated Fiberglass Filters	2
4-60		Use Effective Air Filter:	
4-60a	1	Use Medium Efficiency Pleated Filter, MERV 10	
4-60b	5	Use High Efficiency Pleated Filter, MERV 12 or Better, or HEPA	
		<b>Subtotal</b>	<b>3</b>
<b>HVAC EQUIPMENT</b>			
4-61	1	Install exhaust fans in room where office equipment is used	
4-62	3	Install sealed combustion heating and hot water equipment	
4-63	2	Install Power Venting for Combustion Furnaces and Water Heating Equipment (Cannot Be Taken in Addition to Action Item 4-63)	
4-64	2	Install exhaust fan in attached garage on timer or wired to door opener or no garage attached	
4-65		Size new or replaced space heating and/or cooling equipment to no greater than 130% of design heating and cooling loads	
4-66	3	Replace all existing vent fans with higher efficiency units, which are quiet and rated to 1.5 sones	3
4-67	5	Bonus Points: Provide balanced or slightly positive indoor pressure using controlled ventilation:	
4-68	2	Install whole house fan beyond the code requirements	
4-69	1	Flow Test All Fans In the House	1
4-70	1	Use Heating System Controls That Are Free of Mercury	1
4-71	1	Limit Kitchen Exhaust Fan to 300 CFM Maximum (unless you have appropriate make up air or doesn't depressurize building more than 2 pascals and fan is 2.5 sones or less)	1
4-72	1	Install 60-Minute Timer Switches for Bath Exhaust Fans or HRV Override Switch	

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4-73	2	Install a quiet (<1.5 sone) bath fan in all bathrooms with smooth ducting, minimum 4 inch or employ other quiet ventilation strategy	
4-74	1	No Sound Insulation or Other Fibrous Materials Installed Inside Ducting	
4-75	3	Install timer control integrated with thermostat on continually running HRV	
4-76	5	Properly install a hybrid heating system	
4-77	10	Install Whole House Radiant Heating System (No Ducted Heating)	
		Create individual return pathways for air in bedrooms	
		<b>Subtotal</b>	<b>6</b>
<b>Health and Indoor Air Quality</b>			
4-78	1	Use low toxic cleaners	1
4-79	1	Substitute Products That Require Solvent-Based Cleaning Methods with Solvent-Free or Water-Based Methods	
4-80	1	Educate homeowners on keeping Hazardous Cleaning and Maintenance Products, Separate from Occupied Space	1
4-81	1	If Installing Water Filter at Sink, Select One with Biodegradable Carbon Filter	
4-82	1	Install Showerhead Filter	
4-83	3	Do Not Install a Wood-Burning Fireplace Inside House	
4-84	Revisit	Do Not Install Gas-Burning Appliances Inside House	
4-85		Provide a cleanable doormat at major entrances to house (front, back, garage)	
4-86		Tiered for built in vs. removable (RE 4-28)	
4-87	3	Design a Shoe Removal Vestibule at Major Entrances to House (Front, Back, Garage)	3
4-88	1	Install Floor Drain or Catch Basin with Drain Under Washing Machine and/or Water Heater	1
4-89	1	Install Moisture Alarms Under Sinks and Dishwasher	
4-90		Credit Item Addressing Mold Abatement	
4-91	3	Install a Whole House Water Filter System	
		<b>Subtotal</b>	<b>6</b>
<b>Extra Credit for Health and Indoor Air Quality</b>			
4-92		Extra Credit for Innovation in Health and Indoor Air Quality	
		<b>Subtotal</b>	<b>0</b>
	<b>72</b>	<b>HEALTH AND INDOOR AIR QUALITY SECTION TOTALS</b>	<b>112</b>
<b>SECTION FIVE: MATERIALS EFFICIENCY</b>			
<b>OVERALL</b>			
5-1		Develop a comprehensive waste management plan for existing structure and new construction waste	1
5-2		Uber materials text - Aaron A. to develop	
5-3	3	Develop a written comprehensive reuse plan and/or invite company/contractor to perform a re-use audit	
5-4	5,7,9	Design and build for deconstruction	
5-5	1-5	Eliminate secondary finish materials (see handbook for details)	3
5-6		90% diversion of waste by reuse and/or recycling	
		<b>Subtotal</b>	<b>4</b>
<b>JOBSITE OPERATIONS</b>			
<b>Reduce</b>			
5-7	1	Use suppliers who offer reusable/recyclable or no packaging for major materials	1
5-8	1-3	Use suppliers that operate a "take back" program	1
5-9	3	Provide (to framer) and use layout and cut plan	
5-10	1	Use central cutting area or cut packs	1
5-11	2	Require subcontractors and contractor's employees to participate in waste reduction efforts	2
		<b>Subtotal</b>	<b>5</b>
<b>Reuse</b>			
5-12	5	Purchase used building materials for your job; minimum of 5 applications	5
5-13	2-20	Use deconstruction to dismantle existing building(s) for reuse	
5-14	1	Redirect wood scraps	1
5-15	1	Redirect reusable finish items	1
5-16		Reuse on-site or use salvaged building materials (at least 50%)	
5-16a	1	Reuse Doors	1
5-16b	2	Reuse Flooring	2
5-16c	1	Reuse electrical and plumbing fixtures that meet or can be modified to meet code	1
5-16d	1	Reuse Hardware	
5-16e	1	Reuse Cabinets	
5-16f	2	Reuse Siding	
5-16g	1	Reuse Decking	
5-16h	2	Reuse Trim	2
5-16i	2	Reuse lumber	
5-16j	2	Reuse concrete or masonry items on site	



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5-16k	1	Reuse windows (excluding single-pane)	
		<b>Subtotal</b>	<b>13</b>
<b>Recycle</b>			
<b>Source Separation Recycling</b>			
5-17		Recycle by source separation with an 85% minimum recycling rate (applies to all demolition waste that is appropriate for recycling and all new construction waste):	
5-17a	2	Cardboard	2
5-17b	3	Existing waste metal and metal scraps	3
5-17c	5	On site existing wood waste and new construction wood waste	5
5-17d	2	Package wrap and pallet wrap	2
5-17e	2	Drywall	2
5-17f	2	Concrete/Asphalt Rubble, Masonry Materials, or Porcelain	2
5-17g	1	Paint	
5-17h	4	Asphalt Roofing	4
5-17i	1	Carpet padding and upholstery foam	
5-17j	2	Glass	
5-17k	2	Land Clearing and Yard Waste, Soil, and Sod	2
5-17l		Appliances - is this possible?	
5-17m		Other (any additional existing waste from projects that can be recycled)	
		<b>Subtotal</b>	<b>22</b>
<b>Commingle Recycling</b>			
5-18		Send at least 85% of jobsite waste (by weight, excluding concrete) to a commingle recycling facility with a:	
5-18a		50% recycling rate	
5-18b		75% recycling rate	
5-18c		90% recycling rate	
5-19		Commingle Recycle at Least 50% of Jobsite Debris, and Take to a Facility With a Minimum Recycling Rate of 50%	
		<b>Subtotal</b>	<b>0</b>
<b>Bonus Recycling</b>			
5-20		Bonus Points: ensuring your recycleables have been dedicated to an equivalent or better use	
		<b>Subtotal</b>	<b>0</b>
<b>DESIGN AND MATERIAL SELECTION</b>			
<b>Overall</b>			
5-21	1	Optimize material use through use of standard dimensions in design	1
5-22	1	Install materials with a 50 year life cycle; minimum of 5 finish applications	1
5-23	1	Install materials with longer life cycles	
5-24	2-6	Install locally produced and sourced materials; minimum of 5 applications	4
5-25	3	Use Urban or Forest Salvaged Lumber, Minimum 200 Board Feet	
5-26	1	Use Any Amount of Rapidly Renewable Building Materials and Products Made From Plants Harvested Within a Ten-Year Cycle or Shorter	1
5-27	3	In Three Applications, Use Rapidly Renewable Building Materials and Products Made From Plants Harvested Within a Ten-Year Cycle or Shorter	
5-28	3	Use No Endangered Wood Species	
5-29	2-4	Use Environmentally Preferable Products with Third-Party Certification, such as SCS, Greenguard, Green Seal, Cradle to Cradle, and Floor Score (Not Applicable to Carpet) minimum of three applications	
5-30	1-5	Use salvaged lumber (1 point for every 500 board feet)	1
5-31	3	Use No PVC Piping for Plumbing	
		<b>Subtotal</b>	<b>7</b>
<b>Framing</b>			
5-32	1	Use stacked floor plans	
5-33	3	Use engineered structural products and use no new dimensional 2xs larger than 2x8, and no 4xs larger than 4x8	3
5-34	3	Use structural insulated panels for all new walls	
5-35	3	Use finger-jointed framing material (e.g. plates and studs); minimum of 500 board feet	
5-36		Use third-party certified sustainably harvested wood (Tier levels outlined in the handbook):	
5-36a	7	Dimensional lumber, Tier 1; 50% minimum (of non-salvaged)	
5-36b	1	Dimensional lumber, Tier 2	
5-36c	5	Sheathing, Tier 1; 50% minimum	
5-36d	1	Sheathing, Tier 2	
5-36e	3	Beams, Tier 1; 50% minimum	
5-36f	1	Beams, Tier 2	
5-37	3	Use Factory Framed Wall Panels (Panelized Wall Construction) for all new walls	
5-38	3	Use Insulated Concrete Forms (ICFs) for all new walls	
5-39	3	Use advanced framing: 24-in OC for all new walls	

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		<b>Subtotal</b>	<b>3</b>
<b>Foundation</b>			
5-40	5	Use Flyash or Blast Furnace Slag For 25% by Weight of Cementitious Materials for All Concrete (20% for Flat Work)	
5-41	1	Use recycled concrete, asphalt, or glass cullet for base or fill for new foundation; minimum of 35%	
		<b>Subtotal</b>	<b>0</b>
<b>Sub-Floor</b>			
5-42	1	Use Recycled-Content Sub-Floor	
		<b>Subtotal</b>	<b>0</b>
<b>Doors</b>			
5-43	1	Use reconstituted or recycled-content doors	
		<b>Subtotal</b>	<b>0</b>
<b>Finish Floor</b>			
5-43	4	No Vinyl Flooring	
5-44	1	Use Any Amount of Rapidly Renewable Flooring Products With a Ten-Year Harvest Cycle or Shorter (Excluding Carpet)	
5-45	3	On More Than 250 Square Feet, Use Rapidly Renewable Flooring Products With a Ten-Year Harvest Cycle or Shorter (Excluding Carpet)	
5-46	1	Use Recycled-Content Carpet Pad	
5-47	1	Use Recycled, Renewed Carpet or Wool Carpet	
5-48	1	Use replaceable non-vinyl carpet tile	<b>1</b>
5-49	3	Use 40% recycled-content or salvaged hard surface tile, 75 square feet minimum	<b>3</b>
5-50	3	Use Natural Linoleum	
5-51		Use Flooring that is Third-Party Certified Sustainably Harvested Wood that Meets:	
5-51a	5	Tier 1 requirements (As outlined in handbook); 50% minimum	
5-51b	1	Tier 2 requirements (As outlined in handbook)	
5-52	1	Use durable/spot repairable finish for floor or woodwork	
		<b>Subtotal</b>	<b>4</b>
<b>Interior Walls</b>			
5-53	1	Use recycled or "reworked" paint and finishes in addition and for any re-painted surfaces	
5-54	3	Use Drywall with a Minimum of 40% Recycled-Content Gypsum or Flue Gas Substitute for Recycled Gypsum	
5-55	1-3	Use Natural Wall Finishes, Like Lime Paint and Clay	
5-56	2	Reduce Interior Walls Through Open Plan for Kitchen, Dining, and Living Areas	
		<b>Subtotal</b>	<b>0</b>
<b>Exterior Walls</b>			
5-57	3	Use siding with reclaimed, or recycled material on at least 20% of solid wall surface	
5-58	2	Use 50-year siding product for new or replaced siding	<b>2</b>
5-59			
5-60	1	Use regionally-produced stone or brick	
5-61	4	If replacing siding and/or exterior trim no vinyl siding or exterior trim	
5-62		Use Wood Siding that is Third-Party Certified Sustainably Harvested Wood, On At Least 20% of Solid Wall Surface that meets:	
5-62a	5	Tier 1 requirements (As outlined in handbook)	
5-62b	1	Tier 2 requirements (As outlined in handbook)	
5-63	7	Use straw bale walls, minimum R-28, for all new walls	
		<b>Subtotal</b>	<b>2</b>
<b>Windows</b>			
5-64	3	Use Wood/Composite or Fiberglass Windows	
5-65	4	If replacing windows no vinyl windows	
5-66		Use Wood Windows that are Third-Party Certified Sustainably Harvested Wood that Meet:	
5-66a	4	Tier 1 requirements (As outlined in handbook)	
5-66b	1	Tier 2 requirements (As outlined in handbook)	
		<b>Subtotal</b>	<b>0</b>
<b>Cabinetry and Trim</b>			
		<b>If Using Trim:</b>	
5-67	1	Use Regional Trim Products, 50% Minimum	
5-68		Use Trim That Is Third-Party Certified Sustainably Harvested Wood, minimum of 50% that Meets:	
5-68a	3	Tier 1 requirements (as outlined in handbook)	
5-68b	1	Tier 2 requirements (As outlined in handbook)	
5-69	3	Use Finger-Jointed or MDF Trim With No Added Urea Formaldehyde, 90% Minimum	<b>3</b>
5-70	1	Use wood veneers that are third-party certified sustainably harvested wood that meets the Tier 1 requirements outlined in the Handbook, 50% minimum	
		<b>For Cabinets:</b>	
5-71	2	Use Regional Products, 90% Minimum	<b>2</b>

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5-72		Use Wood that is Third-Party Certified Sustainably Harvested Wood, minimum of 50% that Meets:	
5-72a	3	Tier 1 requirements (As outlined in handbook)	
5-72b	1	Tier 2 requirements (As outlined in handbook)	
5-73	2-3	Use Cabinet Casework and Shelving Constructed of Agricultural Fiber With No Added Urea Formaldehyde	
5-74	2	Use countertops that are salvaged, recycled, or third-party certified sustainably harvested wood that meets the Tier 1 requirements outlined in the Handbook	1
		<b>Subtotal</b>	<b>6</b>
<b>Roof</b>			
5-75	2	Use recycled-content roofing material for new/replaced roofing	2
5-76	4	Install a Metal Roof	
		<b>Subtotal</b>	<b>0</b>
<b>Insulation</b>			
5-77	1	Use recycled-content insulation All Insulation to have a Minimum of 40% Recycled-Content	
5-78	3	Use environmentally friendly foam building products (formaldehyde-free, CFC-free, HCFC-free)	3
		<b>Subtotal</b>	<b>3</b>
<b>Other Exterior</b>			
5-79	2	Use reclaimed or salvaged material for landscaping walls	2
5-80	3	Use 100% Recycled Content HDPE, Salvaged Lumber or Lumber that is Third-Party Certified Sustainably Harvested Wood that Meets the Tier 1 Requirements Outlined in the Handbook for Decking and Porches	3
5-81	4	Use No Pressure Treated Lumber	4
5-82		Points for B20 Biodiesel or Better Equipment (5 Points for 100% Excavation Equipment on Biodiesel, 1 Point for Any Additional Vehicle Frequently On Site)	
		<b>Subtotal</b>	<b>9</b>
<b>Recycling</b>			
5-83	1	Provide Built-In Kitchen or easily accessible recycling center	
		<b>Subtotal</b>	<b>0</b>
<b>Extra Credit for Materials Efficiency</b>			
5-84		Extra Credit for Innovation in Materials Efficiency	
	<b>#REF!</b>	<b>MATERIALS EFFICIENCY SECTION TOTALS</b>	<b>91</b>
	<b>#REF!</b>	<b>PROJECT SCORING TOTALS</b>	
<b>PROJECT SUMMARIES</b>			
<b>CODES &amp; REGULATIONS</b>			
<b>SITE &amp; WATER SECTION TOTALS</b>			<b>137</b>
<b>ENERGY EFFICIENCY SECTION TOTALS</b>			<b>86</b>
<b>HEALTH AND INDOOR AIR QUALITY SECTION TOTALS</b>			<b>112</b>
<b>MATERIALS EFFICIENCY SECTION TOTALS</b>			<b>91</b>
			<b>426</b>