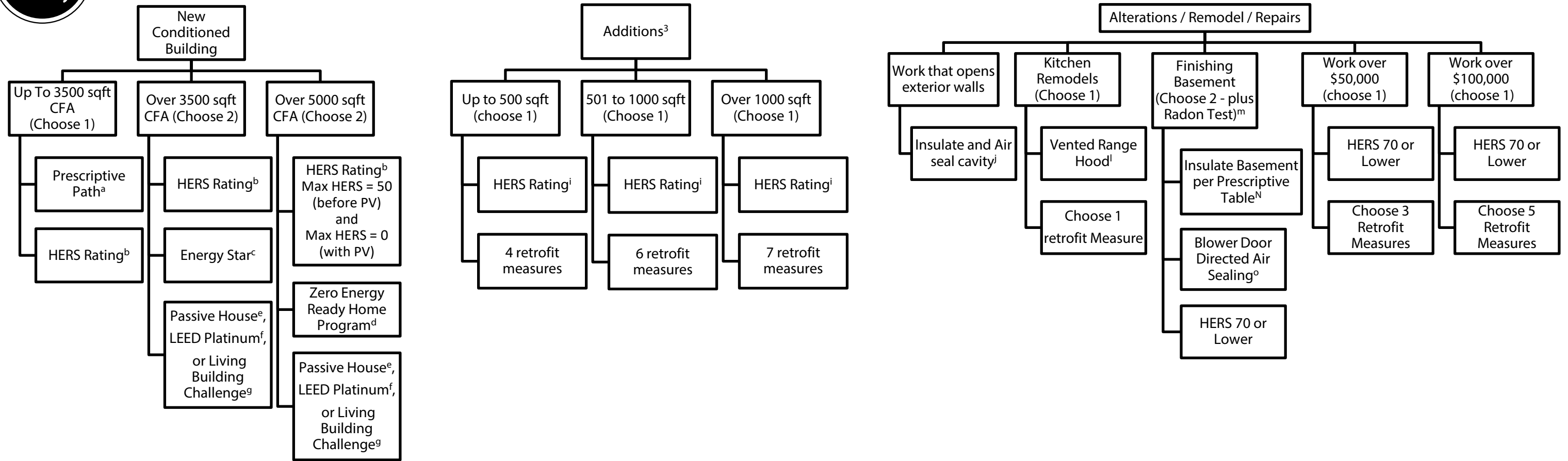




# Boulder County BuildSmart Checklist

Project Address: \_\_\_\_\_



## Retrofit Measures:

<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New	<input type="checkbox"/> Existing <input type="checkbox"/> New
** Replace Furnace <sup>p</sup>	** Replace Boiler <sup>p</sup>	** Replace Water Heater <sup>p</sup>	+ Air Sealing <sup>q</sup>	+ Electric Vehicle Charging Outlet <sup>r</sup>	+++ Balanced Mechanical Ventilation <sup>s</sup>	+ Water Efficiency Retrofits <sup>t</sup>	++ Radon System <sup>u</sup>	PV System <sup>v</sup>	*** Conditioned Crawlspace <sup>w</sup>
						<input type="checkbox"/> Bathroom Fixtures <input type="checkbox"/> Dishwasher and Washing Machine			

## Submittal Requirements:

\*\* Provide the manufacturers cut sheet listing the energy factor.

+ List this item on the construction documents.

++ Existing systems list them on the construction documents / New systems provide the design.

\*\*\* Provide details for this on the construction documents

+++ Provide the manufacturers cut sheets for the system, include the duct layout and details on the construction documents.

Note: There have been recent changes to the Boulder County EnergySmart program EnergySmart will continue to provide energy advising services to homeowners interested in undertaking a major energy efficiency or renewable energy improvements but will no longer be working with code compliance matters. For this reason, effective immediately, the Energy Smart Assessment and Advising requirements of BuildSmart will be waived for all projects.

## Notes:

- 1) If your project involves multiple project types (such as an addition and a remodel, or a Kitchen Remodel that is over \$50,000) you will need to meet the requirements of each category.
- 2) Individual efficiency or retrofit measures may be used to satisfy multiple requirements.
- 3) For Additions greater than 200 sq. ft., which result a structure that has more than 3,500 sq. ft. of Conditioned Floor Area, the HERS Rating pathway is required.
- 4) If the Prescriptive Path is selected, provide calculations and graphics, plans and elevations, showing the glazing to floor area ratio. Note the maximum glazing to floor area ratio is limited to 18% per BuildSmart Prescriptive Path.
- 5) If HERS Rating Path is selected, provide the full building file and the fuel summary report.

## Measure Specific Notes:

- a) Must meet requirements of N1102 through N1104
- b) See Table N1106.4 – Maximum Energy Rating Index
- c) See National Program Requirements for ENERGY STAR Certified Homes, Version 3 (Rev. 08): [www.bit.ly/2iF3iJn](http://www.bit.ly/2iF3iJn)
- d) See DOE Zero Energy Ready Home National Program Requirements (Rev. 05): [www.bit.ly/2BbVs1a](http://www.bit.ly/2BbVs1a)
- e) *(Placeholder for Passive House Details)*
- f) LEED Details:
  - Step 1: Documentation at application must be included with building permit application.
  - Step 2: Prior to calling for your drywall inspection, please provide a letter from your LEED for Homes Green Rater with the results of their Mid-construction Verification Visit.
  - Step 3: Prior to C.O.:
    - 1. Letter from your LEED for Homes Green Rater with the results of their Final Construction Verification Visit.
    - 2. Signed Digital copy of LEED for Homes Project Checklist (both the .xls file, and a .pdf copy).
- g) *(Placeholder for Living Building Challenge Details)*
- h) *(Not used)*
- i) See N1101.13.2(3) – HERS Requirements for Additions
- j) Seal all connections or joints between materials, wood to wood connections, or other penetrations with a high quality sealant or air-sealing tape prior to installation of insulation. Insulation shall fill the cavity without gaps or compression (RESNET Grade 1).
- k) *(Not used)*
- l) Range Hoods shall vent directly to the outdoors. Systems capable of exhausting in excess of 400 cfm shall be provided with makeup air.
- m) Radon test results must be provided prior to Final Inspection Sign-off.
- n) See Table N1102.1.2
- o) To enable effective air sealing, a blower door is used to depressurize the home, and then an inspection using smoke sticks, infra-red thermography, or similar will facilitate identification of locations of air leakage pathways that can then be sealed using high quality sealant or air-sealing tape. Particular attention should be placed on concrete to wood connections, as well as on the rim/band joist area.
- p) Per Table N1103.15.1 Furnaces and boilers must have 92% AFUE (or better) and ECM Blower Motors; Water Heaters must have an 0.82 Energy Factor (or better), Heat Pump Water Heaters must be Energy Star Labeled.
- q) Provide blower door test results indicating the building has achieved 5 ACH @ 50 pa or lower. Alternatively, demonstrate verified reduction of 60% or greater.
- r) Provide at least one Level 2 (240-volt) electric vehicle charging receptacle outlet.
- s) Must meet requirements of N1103.6
- t) Install WaterSense labeled plumbing fixtures (choose 1): All Toilets, Bathroom Faucets, and Showerheads (Tamper resistant aerators are acceptable); or Both Energy Star certified clothes washer and Energy Star certified dishwasher.
- u) Active System, or passive system with fan location prewire.
- v) Minimum size is 30% of annual electrical consumption (provide supporting documentation)
- w) Must meet requirements of N1102.1.2 and N1102.2.11 and Ventilation per R408.3.2(2.2) - (1 cfm per every 50 sq. ft. of crawlspace area).