



A Program of the Master Builders Association in Partnership with King and Snohomish Counties

## EMERALD STAR LEVEL REQUIREMENTS

### General Requirements

- ★ Use integrative design process (scope may vary based on project size)
- ★ Encourage consumer education and marketing
- ★ 4000 s.f. unit max, excluding garage and multifamily buildings
- ★ Project must be within ½ mile of at least 5 essential services

### Energy

- ★ Design and build to achieve net zero energy using approved modeling protocols
- ★ Clean energy production (e.g. wind, solar) must be on-site, or within ¼ mile (may not be achieved through RECs)
- ★ Blower door test to achieve 2.4 ACH50 or tighter
- ★ Install energy use monitoring equipment and black/white switch for phantom loads
- ★ Waiver signed to share utility bill data (Multifamily must use EnergyStar Benchmarking database)
- ★ If building garage, provide wiring and run a minimum of 30 amps circuit to garage for alternative fuel vehicle charging
- ★ *For multifamily projects*, 3% of parking stalls must have alternative fuel vehicle charging stations
- ★ Commission building systems (scope may vary based on project size)

### Water Use

- ★ Model to achieve 70% reduction in occupant water using baseline of 67 gallons per person per day
- ★ Achieve a minimum Green Factor score of 0.8



Built Green and Master Builders Association  
335 116<sup>th</sup> Avenue SE • Bellevue WA 98004  
(425) 460-8230 • [www.builtgreen.net](http://www.builtgreen.net)

## Stormwater Runoff

- ★ Single family homes must achieve 100% infiltration. With qualified exemption (e.g. jurisdiction will not allow infiltration on site, Civil Engineer statement to show have achieve maximum possible runoff reduction due to site conditions) the home may achieve 50% reduction
- ★ *Multifamily* buildings must achieve minimum 50% runoff reduction

## Materials

- ★ Project must contain a minimum of 20 components that include at least one environmental attribute.
  - Environmental Attributes include:
    - Locally sourced/manufactured within the State of Washington. If used for wood products must still be certified, or harvested under State small forest owner program
    - Building salvage or reclaimed material
    - Recycled Content (highest percentage available for material type)
    - Product certified by a recognized 3<sup>rd</sup>-party certification. Wood products must meet Built Green's Tier 1 level.
    - Rapidly Renewable with a harvest cycle 10 years or shorter
    - Product is durable with a minimum 50-year life cycle

Additional materials requirements:

- ★ Project must receive an overall construction waste recycling rate of 90% or better
- ★ 90% of wood products by board feet must be Tier 1 certified, building salvaged/reclaimed, rapidly renewable, or recycled content
- ★ Concrete must be one of the following:
  - Reduce Portland Cement by 25% (GO wording: Mix design to reduce portland cement content to 330 lbs. / cu. yd. or less for 2500 p.s.i. concrete, or to 360 lbs. / cu. yd. or less for 3000 p.s.i. concrete.) OR
  - 25 % flyash or blast furnace slag OR
  - 25% recycled aggregate

## Health & Indoor Air Quality

- ★ The following products may not be used in the project:
  - No PVC
  - No-added urea formaldehyde products may be used in the interior spaces
  - No exposed galvanized metals
  - No biocides (i.e. zinc, copper)
  - No permanently installed wall-to-wall carpet
  - No wood-burning fireplaces and wood-burning stoves
- ★ All paints, adhesives, floor finishes, caulks, and sealants, must be low-toxic based on SCAQMD standards (include table in handbook)
- ★ Any foam insulation must have a Global Warming Potential (GWP) of less than 6. (excludes miscellaneous use for sealing)
- ★ Continuously running HRV must be tied to all bathrooms and kitchens
- ★ Any duct openings shall be covered during construction. Thorough cleaning of any ducting shall occur prior to occupancy. Ventilate building continuously for a period of one week after final finishes are applied and prior to occupancy.
- ★ Follow Energy Star Water Management Checklist guidelines for flashing/waterproofing details to ensure water intrusion is minimized. Test wall system to ensure that waterproofing strategies are functioning properly
- ★ Minimize moisture issues during construction process (Built Green credit 4-7, all items). Do not hang sheet rock until moisture level in wood has achieved 17% or lower.
- ★ Air intakes shall be located a minimum of 15' from exhaust locations and away from automobile parking.
- ★ *For Multifamily projects*, capillary breaks shall be provided at any building junctions with concrete.
- ★ A sealed storage area which is partially heated but sealed from dwelling spaces shall be provided for materials such as paint, cleaners, etc.