

Green Building

Green Building Categories	<u>Bronze</u>	<u>Silver</u>	<u>Gold</u>	<u>Emerald</u>
Lot Design,Preparation, Development	39	66	93	119
Resource Efficiency	45	79	113	146
Energy Efficiency	30	60	100	120
Water Efficiency	14	26	41	60
Indoor Environmental Quality	36	65	100	140
Operation,Maintenance, Builder-Owner Education	8	10	11	12
Additional Points	50	100	100	100
Total Points:	222	406	558	697

Point Ratings for Green Buildings using ICC 700-2008 (National Green Building Standard)

These are the minimum required points for each category. The lowest level of points achieved in any category will determine the performance level achieved for the home. Example: You meet all point requirements for Silver in every category except you only score 55 in Energy Efficiency. Your home would only be certified as bronze.

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The following items are areas where we can help you achieve points to have your home certified Green under NAHB using the newly developed Green Building Standard:

Resource Efficiency

601.1- Floor area of the home:

- < or = to 1000 sq.ft. - 15points
- < or = to 1500 sq.ft. - 12 points
- < or = to 2000 sq.ft. - 9 points
- < or = to 2500 sq.ft - 6 points

Homes over 4000 sq.ft. can be certified green but there are additional points that will need to be achieved.

601.2- Use of Advanced Framing Techniques. Points are awarded for each system 3 points each up to 9 points max: examples: 19.2" or 24"oc floor or wall framing, 24" oc roof framing,24"oc interior walls, right sized headers,eliminating headers in interior walls, doubling rim joist in lieu of headers, 2 stud corner framing.

601.3- Building dimensions and layouts are divisible by 16,24 or 48 for 80% of systems:

Maximum of 12 points can be achieved.

601.4- Detailed framing and structural plans, quantity lists are provided:

Maximum 4 points

601.5- Prefabricated components: Modular Construction= 13 points

601.6- Stacked stories above grade are minimum 50% of area below

4-8 points are achievable

602.1- Exterior doors are covered by one of the following methods:

Installing a porch roof or awning, extending the roof overhang,recessing the door
3points for the main entrance, 1 point for an additional door, 5 points max.

602.2- Roof overhangs minimum 12" in areas where less than 40 inches of rain fall a year
4 points.

602.4- Drip edge installed at eaves and gable ends- 3 points

602.9- A water resistive barrier installed behind the exterior veneer is required.

602.10- An ice barrier installed along the eaves is required.

602.12- Flashing details shown on the plans and installed at the required areas. 6 points

606.2- Use of certified wood products. 3-7 points.

607.1- Use of resource efficient materials. Engineered wood, roof/floor trusses. 9 points max.

Energy Efficiency

Building an EnergyStar certified home is recommended since a blower door and duct blaster test would still be required even if you did not build one. Minimum 30 points

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704.2- 50 % of hard wire lighting fixtures or bulbs qualify as Energy Star-4 points

50% of hard wire lighting fixtures qualify as Energy Star - 8points

704.2.2- Number of recessed light that penetrate the thermal envelope are less than 1 per 400 sq.ft.- 2 points

704.2.3- Occupancy sensors installed on indoor lights, Motion sensors installed on outdoor lights. 25% of lights = 2 points 50% of lights = 4 points

704.2.4- Tubular daylight device or a sealed skylight with low-e glass is installed in a room without windows. 2 points

704.2.5- Energy Star or equivalent appliances are installed.

Refrigerator-5 points Dishwasher - 2 points Washing machine - 4 points

704.4- Duct system designed per ACCA manual D. 5 points

704.4.2 & 704.4.3- Space heating and or cooling is provided by a system that does not include air ducts. 15 points each

704.4.4- Duct work is installed with all of the following: Building cavities are not used as returns. Heating and cooling ducts, and mechanical equipment are installed within the conditioned space. Ductwork is not installed in exterior walls. 12 points

704.4.4- Return ducts or transfer grilles are installed in every room with a door except bathrooms,kitchens,clostes,pantries and laundry rooms. 5 points

704.5.1- ACCA Manual S is used to select heating and or cooling equipment. 1point

Water Efficiency

801.1- All hot water piping to kitchen and baths are within 40 ft. of the water heater. 2 points.

-All hot water piping to kitchen and baths are within 30 ft. of the water heater. 3 points.

- Use of a manifold system in which the distance from the water heater to the piping system is less than 15 ft. 6 points

801.2 - Use of Energy Star water conserving appliance

Dishwasher- 2 points

Washing Machine - 8 points

801.4- Use of low flow shower heads and shower are equipped with thermal shock and scald protection. 1point each. Max of 3

Showerheads 1.6gpm 2 additional points

801.5- Water Efficient faucets 1.5gpm or less that comply with ASME A112.18.1.

1 point per bathroom. 2 additional points if all baths comply

801.6- Water closet with a flush volume of 1.28 gallons. 6 points each, max of 18. All water closets in complying. 6 additional points.

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Indoor Environmental Quality

901.1.1- Natural draft space/water heating equipment is not located in conditioned space or is located in a separate room with an outdoor air source. 5 points

901.1.3- Installation of the following equipment:

Direct vent furnace or boiler - 5points

Power vent water heater- 3 points

Direct vent water heater - 5 points

901.1.4- Heat pump air handler in unconditioned space. 2 points

Heat pump air handler in conditioned space. 5 points

901.2.1- Natural gas/propane fireplaces that are power vented or direct vented. 7 points

- Wood burning fireplaces that are sealed and draw air from outside. 4 points

- EPA certified fireplaces. 6 points

901.3- Attached garage: Tightly sealed door between garage/home. **Mandatory** 2 points

Air barrier between garage/home. **Mandatory** 2 points

Garage is detached or there isn't a garage. 10 points

901.4- Structural plywood for walls/floors/roofs is required to be compliant with DOC PS 1 And /or DOC PS 2. Made with moisture resistant adhesives. Trademark should indicate Exposure 1. **Mandatory**

901.5- Wall to wall carpeting is not installed adjacent to toilets or bathing fixtures is

Mandatory

- 85% of carpet, padding and adhesive is to be certified green by a 3rd party program

Carpet- 6 points padding - 2 points adhesive - 2points

901.6- 85% of flooring installed (hardwood) certified green by a 3rd party program
6 points

901.8- Use of low VOC paints. 2-8 points

901.9- Use of low VOC adhesives and sealants. 5 points

Note: 901.8 & 901.9 must be 3rd part certified

901.10- Kitchen & Bath cabinets meet KCMA ESP 01. 2 points

- Kitchen & bath cabinets meet CARB Standard. 3 points

- Kitchen and bath cabinets installed without formaldehyde per ASTM D 6670. 5 points

901.12- Carbon Monoxide Alarms installed within the vicinity of the bedrooms. 3 points

902.1.1- Kitchen exhaust and range hoods have minimum of 100 cfm (intermittent)
25 cfm (continuous) 8 points

902.1.2- Bath exhaust is on an automatic timer. 1st device- 5points

Each additional device- 2points max of 9 points

902.1.4- Energy Star rated bath exhaust fans . 2 points

Bath fans operating at 1 zone or below . 3 points

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902.6- attic access, drop down stairs are sealed. 2 points

All penetrations are sealed in the following areas: attic, walls, floors. 2 points each

903.4.1- Moisture content of lumber is 19% or less 4 points

903.5.1- Plumbing is not installed in exterior walls. 2 points

Operation, Maintenance, and Building Owner Education

1001.1- A building owners manual is mandatory. We can provide the standard things that are sent with our homeowners packet. An additional item we would be required to send would be a list of the "Green Features" that we installed or supplied. They would achieve additional

points (1per item) for the following:

- a photo record of framing with plumbing and electrical installed
- copies of all prints (done standard)
- a list of practices to conserve energy and water

The total amount of points that could be achieved by Hallmark Homes would be 185-225. This is a conservative estimate and there are variables based on which "green options" you would wish to choose. As you can see this puts you well onto your way of at least achieving the Bronze level as long as all the minimum points are achieved in ALL categories.