

USGBC's 2010 Natural Talent Design Competition: Presented by Salvation Army's EnviRenew

Judging Criteria

Introduction

This document should function as a guide to both project teams and jury members. With a standardized design challenge, a standardized set of judging criteria will keep the designs on track to becoming small, affordable, green homes. The first portion of this document reads in narrative form and explains each portion of the criteria. The second portion of this document is the actual score card for the competition that will be given to jury members electronically.

Discussion of Judging Criteria

General Scoring Information: All sections of the judging criteria are based on five (5) or ten (10) point scales, with zero (0) being the worst possible rating and five (5) or ten (10) being the best. In the case of the five point rating scales, a score of zero should be given only if the design does not show any inclusion of the specific element in question. For example, in the *Educating Occupants – Energy Use Education* section, a team would only receive a score of zero if there was absolutely no explanation or demonstration of how the occupants will be educated on proper energy use, maintenance of equipment, and best practices. A score of five would be given to a team that not only goes above and beyond standard examples of occupant education, but also provides a wholly unique solution and/or program that judges deem truly remarkable. Other sections, such as *Achieving LEED Platinum – Estimated Monthly Energy Costs*, have a more explicit 0-5 point scale. In those cases, the score should be determined solely on the numbered criteria provided. This also holds true for all 0-10 point scales.

Section 1: Broadmoor Neighborhood Context: This section pertains mainly to the exterior of the house and how it fits into the surrounding neighborhood through design, appearance, landscaping, zoning requirement adherence, utilization of Broadmoor's myriad assets, and how it presents a model for future homes in Broadmoor. Relationship to Street and Ground addresses setback requirements and the "grounding of the house." Regarding setbacks, houses should be a rated on how well they adhere to zoning requirements. "Grounding" addresses how well the design disguises the fact that it is seven feet (7') above grade. Setbacks and grounding should be considered equally and together when scoring. Quality of Arrival pertains to the ingress/egress points on the design, especially considering the ADA and Universal Design compliance requirements. Ramps should be assessed on functionality and incorporation into exterior spaces. Lifts should be assessed on functionality and efficiency. Landscape Aesthetic is simply how

attractive the landscape design is to the observer. Landscape Score is based on how many points, out of a possible 13, the design achieves in the Landscaping portion of the Sustainable Sites credit. External Spaces rates the use of porches and covered exterior areas built into the design. How well do the spaces fit into the design and how do they function as livable extensions of the enclosed house. Contextual Sensitivity pertains to how well the house harmonizes with the neighborhood. The house should not stand out too much or be an eyesore, but should display some unique design qualities.

Section 2: Interior Design and Smart Flow: This section focuses on the interior of the home. Specifically, layout, multi-purpose spaces, aesthetics, and evidence of expert input regarding inclusive design for the elderly. The Layout section should focus on how well the specific positioning and orientation creates an overall flow and feel for the space. Multi-Purpose Spaces should be evaluated on their frequency in the design, ease of conversion, number of uses, and overall contribution to the efficiency of the interior space. Aesthetics are exactly what they sound like – how good does the interior appear? Is the interior too modern or flashy for elderly residents or is it too mundane and puritan in appearance to excite the senses of the occupant(s)? Evidence of Input from Expert(s) in Geriatric Design will certainly be the hardest sub-category in this section in which to score well. High-scoring designs will showcase *how well* and *how creatively* elements of ADA and Universal Design incorporated into Layout, Multi-Purpose Spaces, and Aesthetics. It may be helpful to score this subcategory *after* scoring section 5.

Section 3: Cost Estimation: This portion evaluates how accurately and thoroughly the project team estimated the construction costs, and, based on those evaluations, the cost of forecasted construction. The Accuracy section measures a design's adherence to the provided cost estimate. Should a team stick completely to the materials provided on the template, a score of 3 should be marked. Points in this subcategory will be lost if a submittal substitutes materials on the template and provides vague, inaccurate, or overly expensive costs for the substitution. Conversely, high scores will be given to projects that substitute *intelligently* with easily attainable, cost-efficient products and provide excellent documentation of and reference to said products. Jury members should use their inherent knowledge of general building practices and materials to evaluate this category. If the references provided for a specific product are not adequate or informative, that should be an indicator to a jury member or members. Thoroughness is self-explanatory – How thorough was the completion of the cost estimation? Highest scores should be predicated on high scores in the Accuracy section. Lower Construction Costs is a straightforward category as well. Points will be awarded based on how far below \$100k the estimate is. Accordingly, an inaccurate, incomplete estimation should not score high for presenting a forecast of low construction costs.

Section 4: Achieving LEED Platinum: This section assigns points to the anticipated LEED for Homes score of the project. A very heavy emphasis is placed on the Energy & Atmosphere portion of the score card as its already heavy weighting is magnified significantly. The LEED for Homes Energy & Atmosphere Score section assigns points to the design based on its estimated score in the EA section of the LEED for Homes checklist. This is one of the many instances why at least one juror must have significant LEED for Homes experience. Scores should be based on how

many credits the design claims to achieve and the feasibility of achieving said credits. Estimated Monthly Energy Cost must be based on a verifiable and credible energy model. This item will likely be difficult to obtain for many teams, and may end up being a deciding factor in separating extraordinary designs from excellent designs. Should the model be credible, points will be given based on the forecasted monthly energy costs. Total Scorecard Points & Points above LEED for Homes Platinum is as simple as it appears. Points are awarded based on the assumed LEED score and how many points above or below LEED Platinum the design projects.

Section 5: Inclusive Design for Elderly Occupants: This section is based on the extent of ADA and Universal Design compliance and achievement of the Approved Innovation in Design Request: Visitability and Universal Design. Meeting pre-approved LEED for Homes Innovation in Design Credit is a section that should be easily attainable. The requirements can be found at <http://www.usgbc.org/ShowFile.aspx?DocumentID=5294> and judges should consult them in the case of any uncertainties. Designs that meet the ID credit should automatically award a score of 4 points, with 5 points going to a design that presents an exceptionally clever or creative way of meeting the credit. Integration of ADA and Universal Design Req's implies that a design incorporates not only the principles outlined in the aforementioned ID credit, but also those that are not included in the approved request as well. This should also be an area for liberal point earnings provided the design meets ADA and Universal Design Compliance regulations.

Section 6: Educating Occupants: Submissions should include descriptions of a plan and/or program to educate occupants on energy and water use. This will likely be provided in the program description text but may also be referenced in some way on the presentation boards. Energy Use Education should be evaluated standard education regarding energy conservation techniques, as well as instruction on basic operation, care, and maintenance of systems. The same shall be said for Water Use Education, as education plans and/or programs should cover comprehensive operation, care and maintenance of appliances and equipment in addition to information on efficient water use habits.

Section 7: Hurricane Resistance: The final section of the judging criteria focuses on resistance to hurricane-level winds and water. All designs must be able to withstand 150mph winds. General Hurricane Resistance Methods focuses on the use of metal hurricane straps, additional supports in roof trusses, storm shutters, additional door locks and bolts, 150mph rated windows, etc. This section should evaluate the use of such items. Glazing Protection refers to how well projects integrate proper glazing protection in the design. Information on hurricane resistance techniques can be found at pathnet.org (tech set #5: <http://www.pathnet.org/sp.asp?id=17313> and tech set #7: <http://www.pathnet.org/sp.asp?id=18693>) and ibhs.org (section 3: http://www.ibhs.org/publications/downloads/20071106_084937_30401.pdf). These websites should be used as reference guides for both project teams and entrants.

Section 1: Broadmoor Neighborhood Context – 30 pts.

Relationship to Street and Ground – The structure adheres to setbacks and is “well grounded”

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Quality of Arrival – The entrance(s) to the house are creative, functional, and compliant

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Landscape Aesthetic – The general aesthetic appeal of the landscape design

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Landscape Score – Points based on score in Landscape section of Sustainable Sites credit

0	1	2	3	4	5
<i>0-3 pts.</i>	<i>4-5 pts.</i>	<i>6-7 pts.</i>	<i>8-9 pts.</i>	<i>10-11 pts.</i>	<i>12-13 pts.</i>

External Spaces – External spaces function as a living space and extension of the house

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Contextual Sensitivity – Fits well into neighborhood standard and is non-invasive

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Section 2: Interior Design and Smart Flow – 20 pts.

Layout – The furnishings and orientation of the interior create functional and simple spaces.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Multi-Purpose Spaces – Spaces are used efficiently for multiple functions and purposes.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Aesthetics – The look and feel of the house appeal to the judges’ eye.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Evidence of Input from Expert in Geriatric Design – Design elements show inclusion of an advanced understanding of occupant’s needs.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Section 3: Cost Estimation – 20 pts.

Accuracy – The figures submitted are accurate reflections of units and pricing.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Thoroughness – The template was filled out in a detailed manor and items were not omitted.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Lowered Construction Costs – More points are given for greater reductions in costs.

0	1	2	3	4	5	6	7	8	9	10
<i>>\$100k</i>	<i>≤\$100k</i>	<i>≤\$98k</i>	<i>≤\$96</i>	<i>≤\$94k</i>	<i>≤\$92k</i>	<i>≤\$90k</i>	<i>≤\$88k</i>	<i>≤\$86k</i>	<i>≤\$84k</i>	<i>≤\$82k</i>

Section 4: Achieving LEED Platinum – 20 pts.

LEED for Homes Energy and Atmosphere Score – Points awarded based on EA credits met.

0	1	2	3	4	5
<i><10 pts.</i>	<i>10-19 pts.</i>	<i>20-24 pts.</i>	<i>25-29 pts.</i>	<i>30-34 pts.</i>	<i>35-38 pts.</i>

Estimated Monthly Energy Cost – Proof of legitimate energy modeling necessary.

0	1	2	3	4	5
<i>>\$150/mo.</i>	<i>≤\$150/mo.</i>	<i>≤\$100/mo.</i>	<i>≤\$75/mo.</i>	<i>≤\$50/mo.</i>	<i>≤\$25/mo.</i>

Total Scorecard Points & Points above LEED for Homes Platinum – Pts. awarded for LEED score.

0	1	2	3	4	5	6	7	8	9	10
<i>Not LEED</i>	<i>LEED Certified</i>	<i>LEED Silver</i>	<i>LEED Gold</i>	<i>LEED Platinum</i>	<i>1-2 pts. above</i>	<i>3-4 pts. above</i>	<i>5-6 pts. above</i>	<i>7-8 pts. above</i>	<i>9-10 pts. above</i>	<i>11+ pts. above</i>

Section 5: Inclusive Design for Elderly Occupants – 10 pts.

Meeting pre-approved LEED for Homes Innovation in Design Credit – Refer to link in description of **Section 5**.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Integration of ADA and Universal Design Req's – To what extent are required elements included?

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Section 6: Educating Occupants – 10 pts.

Energy Use Education – The plan/program is thorough and inclusive of all necessary attributes.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Water Use Education – The plan/program is thorough and inclusive of all necessary attributes.

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Section 7: Hurricane Resistance – 10 pts.

General Hurricane Resistance Methods – Refer to links in description of **Section 7**

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>

Glazing Protection – Refer to links in description of **Section 7**

0	1	2	3	4	5
<i>Non-existent</i>	<i>Poor</i>	<i>Fair</i>	<i>Good</i>	<i>Excellent</i>	<i>Extraordinary</i>