

2004 Leading Edge Competition
August 31, 2004

Technical Judging Legend:

- A – No Evidence of calculations being used to show iterative design.
- B – Calculations incomplete.
- C – Calculations incorrect.
- D – Evidence of design being influenced by energy analysis.
- E – References/described systems inadequately illustrated or integrated into the design.
- F – Calculations used inappropriately.
- G – Calculations don't substantiate design scheme.
- H – Inappropriate use of design elements.
- I – Applications of elements inappropriate for culture.

* For locating your Entry #, please use the **middle 3 numbers** given to you at the time of registration. For example: If your number is 02-001-03, it will show in the table below as simply "001."

Challenge 2 Competition Results

| *Entry # | Judges Comments | | | | |
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| 001 | Initial Screening: | PASS | Technical Screening: | A, B, C | FAIL |
| | <i>Technical Judges Comments:</i> Heat Loss calculation incomplete/incorrect. | | | | |
| 004 | Initial Screening: | PASS | Technical Screening: | A, B | FAIL |
| | <i>Technical Judges Comments:</i> Equipment size loads in complete. Fenestration in appropriate (East/West glazing excessive). | | | | |
| 011 | Initial Screening: | PASS | Technical Screening: | D | PASS |
| | <i>Technical Judges Comments:</i> Good integration of Energy 10 simulation into design scheme. Poor labeling/documentation. | | | | |
| | <i>Design Judges Comments:</i> Merit Citation for Climatically Appropriate Architecture. The pleasant compact design of this entry with protected apertures and nice shading, daylighting and views was praised by the judges. However, the use of red ink on black background was difficult to read, and the minimalist approach to labeling and explanations prevented the judges from fully understanding the approach. | | | | |
| 012 | Initial Screening: | PASS | Technical Screening: | D | PASS |

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| | <i>Technical Judges Comments:</i> Night ventilation scheme needs more development. | | | | |
| | <i>Design Judges Comments:</i> Second Place. This entry displayed a sensible real-world solution appropriate for design in the desert, and displayed in a nice graphic layout with good choice of color. The disciplined use of glass providing both light and view with low windows for kids was very nice. The convection tower was not well developed, and probably was too small and too low to function adequately. | | | | |
| 013 | Initial Screening: | PASS | Technical Screening: | D, E | PASS |
| | <i>Technical Judges Comments:</i> PV not labeled. Drawings not clear. | | | | |
| | <i>Design Judges Comments:</i> | | | | |
| 023 | Initial Screening: | PASS | Technical Screening: | D | FAIL |
| | <i>Technical Judges Comments:</i> Undue consideration to cooling energy requirements. Inappropriate due to excessive bias towards heat loss reduction. | | | | |
| 024 | Initial Screening: | PASS | Technical Screening: | D | PASS |
| | <i>Technical Judges Comments:</i> Evidence of design being influenced by energy analysis. | | | | |
| | <i>Design Judges Comments:</i> Merit Citation for Exploration of Innovative Design Strategies & Materials. This entry was a playful design with architectural forms appropriate to the building use. The exploration of new materials was good especially the use of Litra-con concrete. The design of the radiant cooling was not fully developed, however, and the northern orientation of the classrooms was troubling to some judges. Won't all the north facing glass cause the spaces be cold in the winter? | | | | |
| 026 | Initial Screening: | PASS | Technical Screening: | D | PASS |
| | <i>Technical Judges Comments:</i> Evidence of design being influenced by energy analysis. | | | | |
| | <i>Design Judges Comments:</i> The graphic design of the presentation boards was excellent. But the project had several flaws: the outdoor play space did not appear to be well integrated into the building design, and the relationship between the floor | | | | |

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| | plan and the roof plan was confusing. | | | |
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| 027 | Initial Screening: | PASS | Technical Screening: | E, F FAIL |
| | <i>Technical Judges Comments:</i> Interesting cooling tube ventilation concept, but not fully thought out. | | | |
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| 032 | Initial Screening: | PASS | Technical Screening: | E, F FAIL |
| | <i>Technical Judges Comments:</i> Misinterpreted results of “savings”. | | | |
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| 036 | Initial Screening: | PASS | Technical Screening: | E, F FAIL |
| | <i>Technical Judges Comments:</i> Ventilation scheme inadequately illustrated/integrated into the design. | | | |
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| 038 | Initial Screening: | PASS | Technical Screening: | E, F FAIL |
| | <i>Technical Judges Comments:</i> References/described systems inadequately illustrated or integrated into the design. Calculations used inappropriately. | | | |
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| 040 | Initial Screening: | PASS | Technical Screening: | E FAIL |
| | <i>Technical Judges Comments:</i> Geothermal water heater system inadequately illustrated/integrated into the design. | | | |
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| 042 | Initial Screening: | PASS | Technical Screening: | E, H FAIL |
| | <i>Technical Judges Comments:</i> Interesting roof concept, but not well thought out (too much emphasis on heating and none on cooling). | | | |
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| 050 | Initial Screening: | PASS | Technical Screening: | E, F FAIL |
| | <i>Technical Judges Comments:</i> Raised floor system inadequately illustrated/integrated into the design. | | | |
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| 053 | Initial Screening: | PASS | Technical Screening: | C, E, F FAIL |
| | <i>Technical Judges Comments:</i> Excessive glazing but calculations show 0 ft. ² of windows. | | | |
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| 057 | Initial Screening: | PASS | Technical Screening: | B FAIL |
| | <i>Technical Judges Comments:</i> Solar study incomplete. | | | |
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| 058 | Initial Screening: | PASS | Technical Screening: | E FAIL |
| | <i>Technical Judges Comments:</i> Solar systems not fully described. (i.e. what are they used for?) | | | |
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| 064 | Initial Screening: PASS | Technical Screening: B | FAIL |
| | <i>Technical Judges Comments:</i> Solar study incomplete. | | |
| 065 | Initial Screening: PASS | Technical Screening: F | FAIL |
| | <i>Technical Judges Comments:</i> BTUs calculated wrong. | | |
| 069 | Initial Screening: PASS | Technical Screening: F | PASS |
| | <i>Technical Judges Comments:</i> Major flaw of exterior mass – but good technical calculations. | | |
| | <i>Design Judges Comments:</i> Merit Citation for use of Evaporative Cooling Wind Towers and Rammed Earth. The design judges liked the aesthetically pleasing use of rammed earth in this project, however the technical judges questioned the use of uninsulated exterior mass. Some questioned whether the play yards would be cool in summer and warm in winter given that they were blocked from cooling breezes and winter sun. | | |
| 070 | Initial Screening: PASS | Technical Screening: F | FAIL |
| | <i>Technical Judges Comments:</i> BTUs calculated wrong. | | |
| 072 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing one Elevation. | | |
| 076 | Initial Screening: PASS | Technical Screening: B, E | FAIL |
| | <i>Technical Judges Comments:</i> Calculations incomplete. References/described systems inadequately illustrated or integrated into the design. | | |
| 078 | Initial Screening: PASS | Technical Screening: E | FAIL |
| | <i>Technical Judges Comments:</i> Creative approach, but solar control inadequate described/depicted. | | |
| 083 | Initial Screening: PASS | Technical Screening: B, C, E | FAIL |
| | <i>Technical Judges Comments:</i> Calculations incorrect and incomplete. Described systems not adequately displayed. Wall detail plagiarized. | | |
| 084 | Initial Screening: PASS | Technical Screening: B, C | FAIL |
| | <i>Technical Judges Comments:</i> Calculations incorrect and incomplete. | | |

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| 085 | Initial Screening: PASS | Technical Screening: A, B | FAIL |
| | <i>Technical Judges Comments:</i> Calculations non-existent. | | |
| 086 | Initial Screening: PASS | Technical Screening: B, C | FAIL |
| | <i>Technical Judges Comments:</i> Calculations non-existent. | | |
| 087 | Initial Screening: PASS | Technical Screening: D | PASS |
| | <i>Technical Judges Comments:</i> Unclear “cool roof” concept. | | |
| | <i>Design Judges Comments:</i> Merit Citation for Sensitive Integration and Resolution of Interior and Exterior Educational Spaces. The organizing design concept and aesthetics of this entry were praised. The play yard was well integrated into the design. However some judges questioned whether the use of berms and mass was appropriate for this type of building in this climate. | | |
| 088 | Initial Screening: PASS | Technical Screening: A, B | FAIL |
| | <i>Technical Judges Comments:</i> Calculations non-existent. | | |
| 090 | Initial Screening: PASS | Technical Screening: D | PASS |
| | <i>Technical Judges Comments:</i> Very little about ventilation or cooling. | | |
| | <i>Design Judges Comments:</i> There was a compelling description of the analysis process in this entry, but it was not clear how that process influenced the design. There appears to be good use of mass, but the scheme is not well developed, and the judges could not tell which classroom was which. Shading a blank wall is an odd choice, and the intent, whether technical or just graphic was not indicated. The double roof is interesting but probably unrealistic. | | |
| 093 | Initial Screening: FAIL | | |
| | <i>Comments:</i> No Elevations and no wall detail. | | |
| 094 | Initial Screening: PASS | Technical Screening: A, E | FAIL |
| | <i>Technical Judges Comments:</i> Sod roof and batch heater inadequately described/illustrated. | | |
| 095 | Initial Screening: PASS | Technical Screening: A, E | FAIL |
| | <i>Technical Judges Comments:</i> Sun penetration calculations don’t optimize solar shading. | | |

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| 096 | Initial Screening: PASS | Technical Screening: D | PASS |
| | <i>Technical Judges Comments:</i> Unique approach. | | |
| | <i>Design Judges Comments:</i> Merit Citation for Innovative Passive Conditioning Strategies. This entry had a pleasing graphic layout that unfortunately did not communicate the design very well. Nevertheless the judges felt that there was evidence of much thinking “outside the box”. In particular the mister system was interesting, although some judges were not convinced it would work. The play yard design needed more development. | | |
| 097 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing one Elevation. | | |
| 099 | Initial Screening: PASS | Technical Screening: E | FAIL |
| | <i>Technical Judges Comments:</i> Calculations illegible. | | |
| 109 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing one Elevation. | | |
| 111 | Initial Screening: PASS | Technical Screening: A, E | FAIL |
| | <i>Technical Judges Comments:</i> No pre/post data. Air-conditioning inadequately described/illustrated. | | |
| 122 | Initial Screening: PASS | Technical Screening: A | FAIL |
| | <i>Technical Judges Comments:</i> No pre/post data. Calculations do not show any information. | | |
| 124 | Initial Screening: PASS | Technical Screening: C | FAIL |
| | <i>Technical Judges Comments:</i> Shading devices show direct beam even though narrative claims otherwise. | | |
| 126 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing Narrative, Section, and Perspective. | | |
| 131 | Initial Screening: PASS | Technical Screening: B | FAIL |
| | <i>Technical Judges Comments:</i> Sun control interesting, however no other elements were addressed. | | |
| 136 | Initial Screening: FAIL | | |

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| | <i>Comments:</i> Missing Section, Elevation and Wall detail. | | | |
| 148 | Initial Screening: PASS | Technical Screening: D | PASS | |
| | <i>Technical Judges Comments:</i> Climate responsive with reasonable calculations. | | | |
| | <i>Design Judges Comments:</i> Merit Citation for Dynamic Design Elements and Innovative Use of Evaporative Underfloor Displacement Ventilation. This entry displayed a courageous use of a strong architectural form coupled with dynamic technical strategies. But the graphic design of the boards made the technical strategies difficult to understand and the design hard to follow. The sections did not appear to correlate to the plans. | | | |
| 154 | Initial Screening: FAIL | | | |
| | <i>Comments:</i> Missing Site plan and only partial Wall detail. | | | |
| 155 | Initial Screening: PASS | Technical Screening: E | FAIL | |
| | <i>Technical Judges Comments:</i> PV unclear. Electrical lighting should be added at night. | | | |
| 157 | Initial Screening: FAIL | | | |
| | <i>Comments:</i> Missing Wall detail. | | | |
| 160 | Initial Screening: PASS | Technical Screening: B | FAIL | |
| | <i>Technical Judges Comments:</i> Not thought through – the operating fenestration does not seem to be effective. Not enough explanation. | | | |
| 164 | Initial Screening: PASS | Technical Screening: G | FAIL | |
| | <i>Technical Judges Comments:</i> Mass isn't shaded. | | | |
| 166 | Initial Screening: PASS | Technical Screening: B | FAIL | |
| | <i>Technical Judges Comments:</i> Calculations incomplete. | | | |
| 167 | Initial Screening: PASS | Technical Screening: G | FAIL | |
| | <i>Technical Judges Comments:</i> Cool tube inadequate. | | | |
| 168 | Initial Screening: PASS | Technical Screening: D | PASS | |

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| | <i>Technical Judges Comments:</i> Elevation and Perspective mislabeled. Reasonable approach to shading and ventilation. |
| | <i>Design Judges Comments:</i> The design judges felt that the form of this entry was not integrated with the sustainable approach, and not responsive to a desert environment. The play yards were not well enough designed. |
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| 175 | Initial Screening: PASS Technical Screening: B, G FAIL |
| | <i>Technical Judges Comments:</i> Daylighting and shading scheme not effective. |
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| 176 | Initial Screening: PASS Technical Screening: B, G FAIL |
| | <i>Technical Judges Comments:</i> Unable to read text. |
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| 177 | Initial Screening: PASS Technical Screening: D FAIL |
| | <i>Technical Judges Comments:</i> Solar control is okay. Ventilation and cooling scheme inadequate. |
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| 178 | Initial Screening: PASS Technical Screening: E PASS |
| | <i>Technical Judges Comments:</i> Solar okay, but PV not adequately shown. |
| | <i>Design Judges Comments:</i> Merit Citation for Detailed Exploration of Sustainable Materials. The judges praised the diagrams of sustainable materials, the illustration of the technical process. Unfortunately they felt that the spirit of the technical exploration was not reflected in the design. In particular the use of the articulated skin could have provided a programmatic function. |
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| 179 | Initial Screening: PASS Technical Screening: A FAIL |
| | <i>Technical Judges Comments:</i> Technical analysis is not clearly connected to design scheme. |
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| 180 | Initial Screening: PASS Technical Screening: D PASS |
| | <i>Technical Judges Comments:</i> Innovative, clever approach. |
| | First Place. The fun and eclectic design of the project was praised by the design judges as a good place for children. The use of the building as a tool to teach children about sustainable design was also excellent. The wind tower concept was interesting, practical, and was praised by the technical judges. The detail section was very informative. |
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| 181 | Initial Screening: PASS | Technical Screening: E | FAIL |
| | <i>Technical Judges Comments:</i> Elements not fully carried through or described. | | |
| 182 | Initial Screening: PASS | Technical Screening: C | PASS |
| | <i>Technical Judges Comments:</i> Some errors in calculation which may reduce total potential. | | |
| | <i>Design Judges Comments:</i> This entry used a residential approach with few modifications. The sustainable and energy efficient strategies were minimal and just met the basic technical requirements. Any materials and systems used were not integrated with the aesthetics of the project. Next time the entrants are urged to stretch their design approach beyond residential aesthetics. | | |
| 183 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Does not meet submission format requirements. | | |
| 209 | Initial Screening: PASS | Technical Screening: G | FAIL |
| | <i>Technical Judges Comments:</i> Calculations not clear. No summary and energy model simulations are not included to explain design. | | |
| 215 | Initial Screening: PASS | Technical Screening: B, C | FAIL |
| | <i>Technical Judges Comments:</i> No shading devices. | | |
| 216 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing Section and Wall detail. | | |
| 217 | Initial Screening: FAIL | | |
| | <i>Comments:</i> Missing one Elevation. | | |