# SCI-ARC/CALTECH

# ENGINEERING

| | | TEAM SCORE | | | | POINTS |
|---|---|---|---|---|---|---|
| | | APPROACH | EQUALS | EXCEEDS | ECLIPSES | /100 |
| **CONTEST CRITERIA** | | 0-60% | 61-80% | 81-90% | 91-100% | |
| **A.** | **FUNCTIONALITY** | | | | | |
| **1** | Do the systems function as intended? | | | | X | |
| **2** | Does the HVAC system maintain indoor air quality via contaminant control, fresh air ventilation, or both? | | | X | | |
| **3** | Does the HVAC system maintain uniform thermal comfort conditions via temperature control, humidity control, air movement, and a successful distribution system design? | | | X | | |
| **B.** | **EFFICIENCY** | | | | | |
| **1** | Relative to conventional systems, how much energy will the systems save over the course of an entire year? | | | X | | |
| **2** | Do the HVAC and lighting controls facilitate a reduction in energy consumption during an entire year of operation? | | | | X | |
| **C.** | **INNOVATION** | | | | | |
| **1** | Were any unique approaches used to solve design challenges? | | | | X | |
| **2** | Do the proposed innovations have true market potential? | | | | X | |
| **D.** | **RELIABILITY** | | | | | |
| **1** | How long are the systems expected to operate at a high level of performance? | | | | X | |
| **2** | How much maintenance is required to keep them operating at a high level? | | | X | | |
| **E.** | **DOCUMENTATION** | | | | | |
| **1** | Did the drawings, construction specifications, energy analysis results and discussion, and audiovisual engineering presentation enable the jury to conduct a preliminary evaluation of the design prior to its arrival at the competition site? | | | X | | |
| **2** | Did the drawings, construction specifications, energy analysis results and discussion, and audiovisual engineering presentation accurately reflect the constructed project as assembled on the competition site? | | | X | | |
| **Total** | | | | | | 91 |