



Minutes of the State Appeals Board
Appeal #04-01
Friday January 16, 2004

I. Called to order:

- Appeals Board members included Steve Torell, Building Official for the city of Chanhassen; Jim Lambeth a contractor with Woodside Communities; Roger Larson an architect with BWBR; Doug Siers a structural engineer with Opus Architects & Engineers; and Thomas Downs Jr. a structural engineer with BKBM Engineers.
- Chairman Tom Downs called the meeting to order at 10:05 AM.
- Those present in the audience were Howard Theis, the applicant and contractor with Wooden Dreams, Inc.; John Tilton, the Building Official for St. Louis Park; George Hagemann, the affected homeowner; Paul Heimkes and Peter Kulczyk of the State's Building Codes & Standards Division.

II. Introduction of the Appeal:

- Tom Downs summarized the subject of the appeal.

III. Board Discussion –

A. Background:

- The contractor explained that the permit he obtained was for some basement refinishing and a new 6' x 17' deck. One end of the deck is 9' above grade and the other end is a couple of steps from grade. The guard system design incorporated the "cable-rail" system by Feeney Wire Rope Company. This is a packaged, designed guardrail system consisting of a steel guardrail framework lag-bolted to the wood deck superstructure with steel cables 3" o.c. stretched between vertical steel intermediates 3' apart.
- The approved plans the contractor received back from the city contained a redlined note not approving this guard system. The contractor has not yet installed a guard on the deck.
- The homeowner stated that they had seen this system used on other homes, including newer houses constructed under the current building code. The owner wanted this contemporary open look.

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B. General:

- John Tilton was asked how he weighed the fact that this similar design has been used in other cities. John responded, “Because the code is silent [on the structural design of the infill], it is the city’s responsibility to determine safety requirements for the city”. The city of St. Louis Park has an unwritten policy prohibiting cables as infill for guards. Scott clarified that the administrative section of the code permits building officials to “adopt policies and procedures in order to clarify its application” provided that the “policy is in conformance with the intent and purpose of the code.” The issue, then, is to determine the intent of the code relating to guard infill. When asked, John said his primary concern was the possibility of getting a head stuck between the cables. Scott added [and clarified here] that national studies have been done to show that virtually no children one year or older in age can pass completely through a four-inch wide opening. P.27 Building Standards / March-April, 1989, Elliott O. Stephenson.
- John reiterated his understanding that the dictionary definition of rail, means rigid. Therefore, the infill must be of rigid materials. There was some discussion that if this were true, whether chain link fence material would comply. Scott added that the division explicitly permits chain link fencing to satisfy the infill requirements of bleacher guards.
- The contractor stated that if approved, he would install the guard system to the manufacturer’s specifications, and if necessary, certify this to the board.
- Jim quoted section 4.2.2 of the referenced acceptance criteria for guards and stated that this design complies.
- Doug stated that the code requires a barrier, not necessarily one of rigid materials.
- Tom asked if John had reviewed the referenced acceptance criteria published by ICBO and ICC. He had not.

IV. Open Floor Discussion:

- The homeowner, restated his reasons for wanting this system installed.
- John reiterated his concerns that the proposed design is not safe.

V. Board only Discussion:

- Tom – Relevant design criteria is important. This is satisfied in the ICC Acceptance Criteria referenced in the testing report for the cable system.
- Roger – As climbability is not addressed in the code, it cannot be addressed by a building official. When the code is silent on an issue, the code doesn’t permit one to invent intent. He believes this design meets the code.
- Jim – One cannot determine equivalency without determining intent, since performance must not undermine code safety provisions.

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- Steve – Interpreting infill as having to be rigid is incorrect. If this designed rail system is not acceptable, why do we all permit 2 x 2 cedar to be used without design?
- Doug – As the cable is installed at 3” o.c. and the maximum design maximum deflection is ½”, this design meets the code.

VI. Deliberation:

- A motion was made by Jim Lambeth to approve the appeal as presented. Roger Larson seconded the motion.
- The motioned carried unanimously.
- The meeting was adjourned at 10:55 AM

Respectfully submitted,

Scott McLellan

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