

**CAUSE NO: 05-03L**

**NAME: SMITH BROTHERS**

**ADMINISTRATIVE LAW JUDGE: WILLIAM TEEGUARDEN**

**DATE: NOVEMBER 13, 2005**

**COMMISSION ACTION: AFFIRMED**

**FINDINGS OF FACT**

1. The Fire Prevention and Building Safety Commission (“Commission”) is the State agency responsible for adopting building codes and reviewing properly appealed orders written by regulators which cite violations of those codes.
2. The City of Indianapolis (“City”) has the power to enforce the rules of the Commission within the Uni-Gov boundaries subject to oversight by the Commission.
3. IC 4-21.5, IC 22-12, 675 IAC 12, and the 2001 Indiana Residential Building Code (“IRC”) apply to this proceeding.
4. At all times relevant to this proceeding, Smith Brothers Builders was involved in residential construction in the City.
5. In September of 2004, a duly authorized building inspector for the City issued IRV 252811 to the Builder for a violation involving concrete in a garage being built at 7461 Hague Road.
6. The Builder appealed to the Commission contending the concrete used was sufficient as an “alternate material” as allowed by the IRC.
7. The area at issue is the concrete floor in a detached garage with square footage in the 600 square foot range.
8. The concrete in question was poured with a fiber mesh instead of the wire mesh.
9. The City contends this is a violation of the IRC.
10. The Builder contends that using fiber mesh instead of wire mesh qualifies as an acceptable alternate material under the IRC.
11. IRC Section R106.1 states “The provisions of this code are not intended to limit the appropriate use of materials, appliances, equipment, or methods of design or construction not specifically prescribed by this code provided . . . the proposed alternate materials, appliances, equipment . . . are at least equivalent of that prescribed in this code . . . .”

12. IRC Section R309 deals with carports and detached garages and includes Table R309.
13. Footnote 2 to Table R309 requires welded wire fabric or equivalent to be used in monolithic pours.
14. Table R 402.2 of the IRC requires concrete garage floor slabs to have a minimum compressive strength of 3500 psi.
15. The parties agree that the only issue in this case is whether the concrete with the fiber mesh used here is an adequate substitute for wire mesh.
16. The Builder produced an extensive number of documents discussing the advantages and properties of fiber reinforcement.
17. There are two properties of concrete floors that must be considered, one is overall strength and the other is expansion-contraction which causes cracks in freeze-thaw situations.
18. The documents provided by the Builder demonstrate clearly that fiber reinforcement is equal to (or exceeds) steel mesh in dealing with expansion and contraction problems. See Exhibit 1.
19. The documents, however, do not show that fiber reinforced concrete has the same strength as metal reinforced concrete.
20. Conceptually, the City is correct in contending that the fiber mesh is not automatically the equivalent of the steel mesh in a concrete floor.
21. In this particular case, however, the Building has presented evidence from the concrete provider that the concrete used has strength of 4000 psi.
22. Since the delivered concrete had a psi measurement exceeding the required minimum by 500 psi, the trier of fact concludes that this particular concrete floor meets the criteria for an alternate material as defined by IRC R106.1 and is equivalent to a 3500 psi welded metal mesh.
23. The Notice of Violation should be vacated.

**NONFINAL ORDER**

Notice of Violation IRV 252811 issued by the City of Indianapolis to Smith Brothers Builders is hereby vacated.

